Calendar No. 500

98TH CONGRESS *1st Session*	SENATE	REPORT No. 98-284

SOLID WASTE DISPOSAL ACT AMENDMENTS OF 1983

REPORT

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

TO ACCOMPANY

S. 757

together with

ADDITIONAL VIEWS

OCTOBER 28 (legislative day, OCTOBER 24), 1983.—Ordered to be printed

U.S. GOVERNMENT PRINTING OFFICE

25-371 O WASHINGTON : 1983

S323-24

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OCTOBER 28 (legislative day, OCTOBER 24), 1983.—Ordered to be printed

Mr. CHAFEE, from the Committee on Environment and Public Works, submitted the following

REPORT

together with

ADDITIONAL VIEWS

[To accompany S. 757]

The Committee on Environment and Public Works, to which was referred the bill (S. 757) to amend the Solid Waste Disposal Act to authorize funds for fiscal years 1983, 1984, 1985, 1986, and 1987, and for other purposes, having considered the same, reports favorably thereon with an amendment and recommends that the bill (as amended) do pass.

RELATED LEGISLATIVE HISTORY

It is the intention of the Committee to offer the text of this bill as a committee-sponsored amendment to S. 1283. That bill, containing a one-year authorization for the Solid Waste Disposal Act, was reported May 16, 1983, in order to comply with requirements of the Congressional Budget Act. When the Senate adopts the committee-sponsored amendment to S. 1283, the legislative history of S. 1283 shall then include this report. S. 1283, as amended, will be known as the "Solid Waste Disposal Act Amendments of 1983".

GENERAL STATEMENT

The Resource Conservation and Recovery Act (RCRA) was enacted as an amendment to the Solid Waste Disposal Act (the Act) in 1976. The amendment established this Nation's basic hazardous

waste management system under subtitle C of the Act, and provided complementary authority to encourage the conservation and recovery of valuable materials and energy.

Since the date of enactment, attention has been focused on the implementation of the subtitle C program. In May 1980 the Agency published its first major package of regulations to implement subtitle C. These regulations put into place waste identification, manifesting, transportation and interim status treatment, storage and disposal requirements. While these requirements were long in coming, they represented an important step in bringing the management of hazardous waste under some control. Since May 1980 a semblance of a hazardous waste regulatory and enforcement program has begun to take shape with the promulgation of several proposed final standards for treatment, storage and disposal facilities, and financial responsibility requirements.

However, despite this progress, the disposal of wastes, epecially hazardous wastes, is a worsening national problem. The failure of the Environmental Protection Agency (EPA) to promulgate necessary regulations and, on occasion in recent years, the promulgation and revision of some regulations have exacerbated this problem. Two examples are the decision to exempt from regulation all generators who produce 1,000 kilograms per month or less of hazardous waste and the abrupt decision to suspend, on February 25, 1982, a ban on placing drums of liquid hazardous waste in landfills. The ban, which had been promulgated on May 19, 1980, and went into effect on November 19, 1981, was suspended without advance notice or opportunity for public comment. Fortunately, the Agency recognized its mistake and quickly reimposed the ban. Unfortunately, damage had already been done to both the environment and the Agency's credibility.

Preliminary findings from EPA's "National Survey of Hazardous Waste Generators and Treatment, Storage and Disposal Facilities Regulated under RCRA in 1981", published on August 30, 1983, highlight the need for amendments to the law. The scope of the problem and the inadequacies of the law and the current regulatory program appear to be worse than was originally estimated. For example, previous estimates stated that approximately 40 million metric tons of hazardous waste are produced in the United States each year. These estimates were among the factors influencing various regulatory decisions. The new preliminary findings, however, suggest that the correct figure is roughly 150 million metric tons of hazardous waste each year, almost four times the previous estimate. (One hundred fifty million metric tons equals 40 billion gallons.) Furthermore, the study indicates that less than 25 percent of the 60,000 firms that identified themselves to the Agency as hazardous waste generators were, in fact, subject to EPA's subtitle C regulations.

Additional shortcomings in the regulatory system are suggested by the preliminary estimates which indicate that less than 60 percent of the treatment, storage, and disposal facilities listed with the Agency managed hazardous waste in regulated processes during 1981. Approximately 58 million metric tons (15.6 billion gallons) of hazardous waste were disposed of in 1981 by the following methods: underground injection (57 percent); surface impoundment (38 per-

cent); landfill (3 percent); land treatment (1.4 percent); and other (0.6 percent).

In the 97th Congress, the Subcommittee on Environmental Pollution conducted two days of hearings on amendments to the Solid Waste Disposal Act. Testimony was received from more than 40 witnesses on the need to amend the Act. The Administrator of the Environmental Protection Agency submitted amendments to the Solid Waste Disposal Act which were introduced by request. Congress failed to act on the amendments last year.

During this session of Congress, the Subcommittee on Environmental Pollution held two additional hearings on the need to amend the Solid Waste Disposal Act. One bill, S. 757, provided the focus for the hearings. The Administrator did not submit proposed amendments. Testimony was received from more than 30 witnesses on a variety of subjects. A number of problems were identified and are addressed in the reported bill.

As the result of an EPA regulatory decision, small quantity generators (those who produce 1,000 kilograms per month (kg/mo) or less of hazardous waste) are currently exempt from subtitle C requirements and may dispose of their wastes into sanitary landfills and into sewers that are connected to publicly owned treatment works. Neither of these types of facilities is suited to the disposal or treatment ot toxic organics or metals. In addition, such generators are not required to package the waste in a safe manner nor to notify the transporters that the waste being transported is hazardous. In addition to being toxic, many of the wastes are ignitable, reactive or corrosive and, therefore, create an occupational safety hazard for the unwitting transporter. Although the unregulated community may represent less than 10 percent of the universe, the Office of Technology Assessment has estimated that up to four million metric tons (one billion gallons) of hazardous waste per year are escaping effective control through this exemption.

Delayed promulgation of final regulations to implement subtitle C and prolonged use of interim status permits by EPA has allowed some facilities to operate without assurances that design and performance standards will utilize adequate and available control technology. The application of available technology, at a minimum, is necessary to minimize hazardous waste releases into the environment.

Current EPA regulations do not require facilities receiving permits under subtitle C to address all releases of hazardous wastes from solid waste management units at the facility. A facility which is causing, for example, groundwater contamination from inactive units could, therefore, seek a permit under current regulations and receive the permit without the permit addressing the contamination.

The process for listing hazardous wastes under section 3001 is a general screening to determine that a kind of waste typically can cause harm to human health and the environment if mismanaged. The delisting process set forth in current regulations allows petitioners (usually individual hazardous waste generators or treatment facilities) the opportunity to show that their wastes are significantly different—because of treatment, or because they are generated in a different process—from listed wastes of the same type.

Consequently, their wastes can be excluded—i.e. delisted—from the hazardous waste lists. Under the Agency's regulations, EPA will delist those wastes which do not, or no longer, meet the criteria for which the waste was listed.

EPA's listing regulations do not fully address the fact that wastes are frequently composed of numerous hazardous constituents. In some instances, because listing is a general screening process, EPA may not have taken all the hazardous constituents in a waste into consideration when the waste was originally listed. Although EPA has authority under the Act to reject a delisting petition based on the presence of these additional constituents, EPA's regulations currently do not allow the Agency to do so. This has resulted in some wastes which are still hazardous being exempted from the hazardous waste lists and consequently, from all subtitle C regulation.

Under the Agency's present regulations, to be a hazardous waste, a waste must exhibit a characteristic of hazardous waste or be listed by name. None of the characteristics of hazardous waste promulgated so far—ignitability, corrosivity, reactivity, or extraction procedure toxicity—identifies wastes on the basis of organic toxicity. In addition, EPA's listing process has been virtually stalled for several years.

Currently, the Agency exempts from regulation facilities that burn hazardous waste for the primary purpose of energy recovery. EPA has estimated that 10 to 20 million metric tons of hazardous wastes are burned each year in boilers; a substantial amount of hazardous waste generated is burned in facilities not now regulated under subtitle C. The Agency has acknowledged that burning hazardous wastes for energy recovery is similar to incinerating them and "could pose a parallel or greater risk of environmental dispersal of hazardous waste constituents and products of imcomplete combustion."

Fuel blending is one of several areas where EPA's failure to promulgate regulations had led to direct threats to human health and the environment. Hazardous wastes have been blended with heating oil and sold to unsuspecting customers who burn them under conditions which may not protect human health or the environment. The potential impact of this loophole is even more significant as more and more wastes may be burned in boilers, cement kilns, or other heat recovery units to avoid hazardous waste regulation and treatment costs.

Current law does not mandate that facilities that treat, store, and dispose of hazardous wastes be regularly inspected. Although officers, employees, and representatives of the States and EPA are authorized by section 3007(a) to enter and inspect any facilities where hazardous wastes are handled, too few inspections are being conducted to effectively monitor compliance with subtitle C and applicable regulations. Inspections that do occur are conducted under widely varying State formulated criteria regarding the qualifications of inspectors and the scope of the inspection.

Subtitle C provides criminal penalties for transporting waste to an unpermitted facility and for submitting false information in documents required to be filed under the Act. However, the statute presently does not specifically address the criminal liability of gen-

erators of hazardous waste who knowingly cause the waste to be transported to an unpermitted facility. It also does not address material omissions or the failure to file required reports. Similarly, where hazardous waste is knowingly transported without a manifest, there is no criminal liability unless the waste is subsequently delivered to an unpermitted facility. Although most facilities are operating under interim status permits, there is currently no criminal liability for knowing violations of such requirements. Portions of the current "knowing endangerment" provisions are redundant and unnecessarily restrictive.

Current regulations allow hazardous wastes to be exported from the United States with minimal notice to receiving countries. There is currently no requirement that receiving countries be fully apprised of the nature of the shipment nor a requirement that they consent to receipt of the shipment.

Even with the phaseout of the small quantity generator exemption, sizeable amounts of hazardous materials from such generators, household wastes, and illegal dumping are disposed of in municipal landfills. Current criteria for sanitary landfills are inadequate to deal with these facts. In addition, there is a need to provide for better implementation of the open dumping ban and upgraded criteria for sanitary landfills.

There is a need for more complete and reliable data on hazardous wastes facilities, sites, and exposures to and effects from releases.

Section 7003 currently authorizes suits to immediately restrain any person contributing to handling, storage, treatment, transportation or disposal of any solid waste or hazardous waste that may present an imminent and substantial endangerment to health or the environment. Though the issue of inactive waste sites is not addressed explicitly in section 7003, the Congress, most courts and every administration which has administered the Act has construed the section to apply to such sites. Notwithstanding an opinion from the U.S. Court of Appeals for the Third Circuit and several district court decisions upholding the government's position, two district courts have recently ruled to the contrary. Both cases are on appeal. The Administration testified that clarifying language amending section 7003 would be helpful.

The Administrator is authorized by section 7003 to sue to abate an endangerment whenever the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste may present an imminent and substantial endangerment to health or the environment. There is presently no comparable authority for citizen suits. As exemplied by the Superfund experience, the number of potential problem sites exceeds the Government's ability to take action each time such action is warranted. The problem is primarily one of inadequate resources.

The reported bill, the Solid Waste Disposal Act Amendments of 1983, authorizes appropriations to carry out the purposes of the Solid Waste disposal Act. Several amendments with significant policy implications are included to bring implementation of the Act closer to the original intent of the Congress. Two new and related program directions are included in the bill.

Land disposal of hazardous wastes has been the least expensive and, therefore, most widely used method of managing hazardous waste. It is undisputed that the problems of the present are a direct result of the disposal practices of the past. Unfortunately, these practices are continuing. Particularly troublesome are landfills and surface impoundments of highly toxic, mobile, persistent wastes and wastes that have the potential to bioaccumulate. For many wastes, alternative technologies exist, currently with excess capacity. Where the capacity does not exist it can be developed if a viable market can be assured.

These amendments reaffirm the Administrator's authority to prohibit land disposal methods that cannot be shown to be protective of human health and the environment and direct the Administrator to use that authority. Reliance on land disposal should be minimized and land disposal, particularly landfill and surface impoundments, should be the least favored method for managing hazardous wastes.

These amendments also recognize that safe disposal, storage and treatment opportunities are limited and that the most effective way to protect human health and the environment is to minimize the opportunities for exposure by reducing or eliminating the generation of hazardous waste as expeditiously as possible. Rather than creating a rigorous regulatory program, provisions are included to encourage generators to voluntarily reduce the quantity and toxicity of all wastes. The amendments do not authorize the EPA or any other organization or person to intrude into the production-process or production decisions of individual generators.

Taken as a whole, the reported bill emphasizes two concepts. First, wherever feasible, the generation of hazardous waste is to be reduced or eliminated as expeditiously as possible. Second, waste that is nevertheless generated should be treated, stored, or disposed of so as to minimize the present and future threat to human health and the environment.

Section-by-Section Analysis

SHORT TITLE

This Act may be cited as the Solid Waste Disposal Act Amendments of 1983.

AUTHORIZATIONS

This section authorizes appropriations under section 2007(a) of the Act as follows: $43,628,000 for fiscal year 1983; $45,000,000 for fiscal year 1984; and $47,000,000 per fiscal year for fiscal years 1985, 1986, and 1987. The authorization under this section includes the funds for EPA's basic program activities under the Act, including regulatory functions, permit processing, and enforcement.

Appropriations under section 3011(a) of the Act are authorized as follows: $45,000,000 for fiscal year 1983, $47,000,000 for fiscal year 1984; $50,000,000 for fiscal year 1985; and $52,500,000 per fiscal year for fiscal years 1986 and 1987. The authorization under this section funds grants to the States for purposes of assisting the

States in the development and implementation of authorized State hazardous waste programs.

SMALL QUANTITY GENERATOR REGULATION AND STUDY

The reported bill adds a new subsection (b) to section 3002 of the Solid Waste Disposal Act, closing out the administrative exemption of hazardous waste from small quantity generators from regulation under subtitle C. The amendment establishes requirements for notice to transporters and disposers of such waste and for proper containerization of such wastes. The Agency is required to conduct a study of wastes from generators of less than 1,000 kilograms (2,200 pounds) per month and to establish standards under subtitle C for those generators.

The purpose of this amendment is to correct a current regulatory exclusion from the subtitle C program that was not contemplated or intended by the Congress in enacting the 1976 Act. Under the existing regulations promulgated on May 19, 1980, the Agency conditionally excluded from hazardous waste control most generators who generate less than 1,000 kilograms per month. As discussed in the preamble to those rules, the decision to establish an exclusion limit of 1,000 kilograms per month was not based on a detailed evaluation of the risks associated with exempting small quantity generator wastes, but on considerations of administrative convenience. The Agency recognized the need to regulate these smaller quantity generators when it stated in that preamble that it would "initiate rulemaking within 2 to 5 years to phase in expanded Subtitle C coverage of small quantity generators down to those generating more than 100 kg/mo."

It is questionable whether such an exclusion is authorized by the Act, which requires all hazardous waste to be regulated to protect human health and the environment. The Committee registered its opposition to the 1,000 kilogram per month exclusion when the regulations were originally promulgated in 1980, having earlier objected to the proposal for a 100 kilogram per month exclusion. More recent evidence confirms the validity of those concerns.

As a consequence of the exclusion, most generators have chosen to manage these "small quantities" as conventional trash rather than as the hazardous waste which they are. A survey of one "small quantity generator" industry provided by the Chamber of Commerce of the United States indicated that 85 percent of the small quantity generators in that industry placed their hazardous waste in amongst their conventional solid wastes when they place those wastes for collection. As a direct result, there have been a series of serious accidents injuring unsuspecting trash collectors, destroying their vehicles, and jeopardizing the integrity of the sanitary landfills which receive these wastes. Testimony indicated solid waste collectors are not being told when hazardous waste is being placed for disposal. Hazardous wastes have been taken to sanitary landfills where disposal of these wastes represents an unanticipated environmental risk.

On the basis of the most recent estimates available to the Committee, as much as 15 million metric tons per year of hazardous

waste from "small quantity generators" may be excluded from regulation under subtitle C.

The reported bill responds to this problem in two stages. Within 270 days after enactment, several minimal requirements are placed on hazardous waste from small quantity generators. A major study of such wastes is mandated as well, to produce regulations more completely eliminating this regulatory exclusion by March 31, 1986.

There is an immediate need to provide notice to transporters, treaters, storers, and disposers of small quantities of hazardous waste of what they are handling or receiving. Such notices will enable the handlers of those wastes to properly manage them and be aware of the dangers they present. Accordingly, new section 3002(b)(1) requires that any off-site shipment of hazardous waste listed or identified under section 3001 that is generated by a generator who generates between 100 kilograms and 1,000 kilograms of hazardous waste in any calendar month must be accompanied by a copy of the Environmental Protection Agency's uniform hazardous waste manifest form signed by the generator. This requirement is intended to be self-implementing and becomes effective 270 days after enactment.

In using the uniform hazardous waste manifest, small quantity generators are not being required to fill out the entire form but only the following information:

1. Name and address of the generator of the waste;
2. The United States Department of Transportation (DOT) description of the waste (including the proper shipping name, hazard class, and identification number (UN/NA), if applicable) or, if the DOT description of the waste is not provided under the applicable DOT and EPA regulations, the EPA identification number or a generic description of the waste or a description of the waste by hazardous waste characteristics;
3. The number and type of containers;
4. The quantity of waste being transported; and
5. The name and address of the facility designated to receive the waste.

Care has been taken in assuring that there be no excessive burden in the notification requirements. Many hazardous wastes are required to be subject to the Hazardous Materials Transportation Act. This provision allows compliance with the written notice requirement under that Act to satisfy the requirements of this section. Alternatively, a generator can identify his waste in terms of the EPA identification number, a generic description of the waste such as "waste paint" or "used solvents", or merely by describing the waste in terms of its hazardous waste characteristic. Unless the Administrator finds that additional requirements are necessary to protect human health and the environment, this is the extent of the required notice under this section.

The Administrator is authorized to apply this notice requirement to hazardous waste from generators of levels of less than 100 kilograms per month. In exercising this authority, the Administrator is to establish a lower threshhold for the new section 3002(b)(1) notice requirement at that level necessary to protect human health and the environment.

None of the requirements in this amendment is intended nor should be construed to limit the Agency's authority to impose additional requirements on acutely hazardous wastes or to list additional wastes as acutely hazardous wastes. New section 3002(b)(6) specifically preserves the current regulations regulating acutely hazardous wastes generated in quantities of one kilogram per month or more.

New section 3002(b)(2)(A) requires that generators who generate between 100 kilograms and 1,000 kilograms of any hazardous waste identified under section 3001 on the basis of the characteristics of ignitability, reactivity, or corrosivity, or listed under section 3001 place those wastes in suitable, sound, non-leaking containers when they are transported off the premises on which generated. This requirement is effective 270 days after enactment. A suitable container is one that will not be adversely affected when the hazardous waste in placed in the container (i.e., the waste will not be incompatible with the container). The intent is that the containers prevent spills or leakage. Such containers as 55 gallon drums, if sound and non-leaking, could contain within them smaller containers which may or may not be intact (subject to new section 3004(c)). Of course, any container deemed appropriate for transporting particular wastes under EPA regulations applicable to other generators would be considered suitable for small quantity generators as well. The amendment allows the generator and the transporter of such wastes to mutually agree on the type of container or method of handling to be used. Under the provisions of this bill, hazardous waste identified on the basis of the characteristic of extraction procedure toxicity are not covered by these container requirements.

New section 3002(b)(2)(B) provides that until the Administrator completes the study and regulations required by paragraph (7)(A) and (B), or except as required under State law, no small quantity generator shall be subject to additional manifesting, recordkeeping, or reporting requirements beyond those in EPA regulations promulgated prior to January 1, 1983. The primary purpose of this provision is to limit the types of requirements which may be imposed on small quantity generators pending completion of the regulations required by paragraph (7)(B).

Paragraph (3) of new section 3002(b) requires that until the special small quantity generator regulations under paragraph (7)(B) go into effect, or until the fallback requirements of paragraph (7)(C) apply due to a failure a meet the statutory deadline for publishing those regulations, all hazardous waste from small quantity generators can be disposed of only in a facility which is permitted, licensed, or registered by a State to manage municipal or industrial solid waste. This codifies the existing regulatory requirement, excluding from subtitle C regulation only those small quantity generator wastes which are disposed of in approved facilities. There is no delay in the effective date of this provision since it continues the current requirement.

This language does not allow these waste to go to any municipal or industrial disposal facility, but only to sanitary landfills or other facilities that are approved by the State to handle such wastes. Under current law, these facilities should comply with the sanitary landfill criteria under subtitle D.

New section 3002(b)(5) requires the Agency to modify the regulations for storage facilities under section 3004 to allow small quantity generators to store their waste on-site in tanks or containers for up to 180 days without a permit. If the generator must ship or haul such waste over two hundred road miles, small quantity generators may store wastes on-site without a permit for up to 270 days, up to a total accumulation of 6,000 kilograms of hazardous waste.

Certain generators may be located long distances from the appropriate treatment storage, disposal or recycling facility, and the additional time for storage and quantity of waste that can be stored without having to receive a permit is not unreasonable. The longer storage period provided by paragraph (5) will allow the generator to consolidate wastes into larger loads for shipment off the premises. The period 270 days for remote generators was chosen primarily to accommodate schools and universities, which could accumulate wastes through an academic year for a single shipment. Of course, the more liberal storage requirements also mean that a single shipment from a single "small quantity generator" could total 6,000 kilograms, or 13,200 pounds—over 6 tons.

Paragraph (7)(A) of new section 3002(b) requires the Administrator to conduct a study, in cooperation with the States, of all hazardous waste generated by small quantity generators. The study, to be submitted to Congress by March 31, 1985, is to include a characterization of the number and type of small quantity generators, the quantity and characteristics of hazardous waste generated by such generators, State requirements applicable to such generators, the waste management practices used by individual generators and by industry classes to manage such wastes, the potential costs of modifying those practices, any impact such modifications will have on treatment and disposal facility capacity on a national scale, and the threat presented to human health and the environment and the employees of transporters and solid waste management facilities posed by such hazardous wastes or such management practices. The study is also to consider whether the containerization requirement of new section 3002(b)(2) should be extended to wastes which are identified as hazardous on the basis of toxicity or additional characteristics which may be promulgated by the Agency. The Administrator may require from such generators any information as may be necessary to conduct the study. This statement simply clarifies that the authorities of section 3007 are available to the Administrator in conducting the study and developing regulations under this subsection.

This study is already underway. If, however, it proves difficult to complete by March 31, 1985, this should not be allowed to delay the promulgation of regulations by the statutory deadline. More than 20 States presently regulate hazardous wastes excluded from subtitle C regulations under the small quantity geneator definition. The experience of these States should be a major focus of this study.

The basic standard of subtitle C is the protection of human health and the environment. While the exposure of some individuals to hazardous waste from small quantity generators occurs in a primarily occupational setting, protection of their health is still the object of subtitle C regulation. The provision directs the Agency in

conducting the study and preparing regulations, to give full consideration to the need to protect such employees.

New section 3002(b)(7)(B) requires the Administrator, no later than March 31, 1986, to promulgate additional regulations under sections 3002, 3003, 3004, and 3005 for hazardous waste from small quantity generators. These regulations must contain such requirements as are necessary to protect human health and the environment. The regulatory requirements can supplement those established by paragraphs (1) through (5) of this new subsection.

Many small quantity generators may be small businesses that may be adversely affected if the full set of subtitle C regulations are required. These quantities of wastes from smaller individual generators may cause potential harm if they are improperly managed. Given these considerations, the Agency should determine whether requirements for small quantity generators can be varied from those applicable to other generators while assuring protection of human health and the environment. In particular, the Administrator should examine whether, because of the smaller amount of waste involved, it is possible to simplify, reduce the frequency of, or eliminate the existing reporting and record keeping requirements and still provide adequate protection of human health and the environment. Distinctions may be made from requirements for larger generators, and among classes of small quantity generators or of wastes produced by them.

At the time the Agency promulgates standards for small quantity generators under this new subsection, notification would not be required under section 3010(a) because the Agency is not listing or identifying a hazardous waste under section 3001. However, in developing such standards, the Agency may, of course, use its authorities under section 3010 or 3002 to require small quantity generators to notify the Agency or obtain identification numbers if the Agency believes such requirements are necessary to protect human health and the environment.

The provision directs the Administrator in developing revised requirements for small quantity generators to consider State requirements applicable to small quantity generators. In the event the requirements developed by the Agency are different than those State requirements, the Administration must explain the basis for those differences. The purpose of this provision is to assure that the Agency fully considers the States' experience with small quantity generators in developing revised Federal regulations under paragraph (7)(B). Thus, where States have adopted alternative regulatory approaches and articulated a rationale for their requirements, it is appropriate for the Agency both to evaluate such approaches and explain its decision to impose different requirements in Federal regulations. On the other hand, if States have simply adopted EPA's existing small quantity generator regulations (or its 1978 proposal) by reference, it is not necessary to exhaustively analyze State requirements or to explain or to justify differences between State and Federal requirements.

While paragraph (7)(B) allows standards for waste from small quantity generators to vary from those for other generators' waste, some minimum requirements are specified for small quantity generator waste. The notice requirement of paragraph (1) is a mini-

mum, as is the requirement for suitable containers under paragraph (2). In addition, standards for small quantity generators must also provide that all treatment, storage, and disposal of hazardous waste generated by small quantity generators must be at a facility with a permit under section 3005. This includes both facilities that have a subtitle C permit issued by either EPA or an authorized State or facilities with interim status, since interim status facilities are deemed to have a permit under the language of section 3005. Paragraph (7)(B), however, authorizes the Administrator to establish a level of total generation of waste by a generator, not to exceed 100 kilograms per month of hazardous waste, which the generator would be allowed to continue to manage at a facility which is permitted, licensed, or registered by a State to handle such waste (i.e., a subtitle D facility), if the Administrator determines that such practice will be adequate to protect human health and the environment for that quantity of waste. The Administrator may distinguish among classes or categories of wastes in establishing that level. Any use of this authority should be on the basis of the study of small quantity generator wastes: a 100 kilogram per month cutoff for this requirement should not become a general use. Along with the requirement that small quantity generator wastes go to a subtitle C-permitted facility, the Agency must promulgate whatever additions to the manifest requirement are necessary to enforce the adequate disposal facility requirement.

In the event the Administrator does not promulgate revised small quantity generator requirements by March 31, 1986, new section 3002(b)(7)(C) provides that three requirements (in addition to those set forth in paragraph (1) and (2) and (2)(A)) will automatically go into effect. First, under subparagraph (C)(1), effective March 31, 1986, all small quantity generator waste from a generator producing more than 100 kilograms in any month must be treated, stored, or disposed of at facilities with permits under section 3005. Again, this phrase encompasses not only facilities which have obtained individual permits from EPA for from an authorized State, but also those with interim status.

Second, also effective March 31, 1986, generators subject to subparagraph (C)(i) must begin filing manifest exception reports, although only twice a year. These reports should be filed with EPA in non-authorized States and with the appropriate State agency in authorized States. Similarly, the contents of the reports should be governed by Federal law in unauthorized States and State law in authorized States.

Finally, the generator must begin retaining a copy of the manifest form which has been signed by the designated facility. Consistent with EPA regulations, this copy must be kept for at least three years from the date the waste shipment was accepted by the initial transporter.

The Administrator is expected to promulgate small quantity generator regulations under paragraph (7)(B) by March 31, 1986. The Agency should seek whatever resources are necessary to allow it to complete this task and the others established by this legislation. After such regulations are promulgated as required by March 31, 1986, the requirements of paragraph (1) will remain in effect in authorized States as a Federal requirement until such time as the

States adopt regulations equivalent to EPA's and those regulations are approved by EPA under section 3006(b). Similarly, if the Administrator fails to meet the March 31, 1986, deadline and the requirements of paragraph (7)(C) go into effect automatically, the requirements of paragraph (1) and this subparagraph shall remain in effect in each authorized State until such time as the State issues regulations equivalent to those ultimately developed by the Administrator under paragraph (7)(B) and those State regulations are authorized by EPA under section 3006(b). The requirements of paragraph (7)(C) are not an indication of what is adequate to protect human health and the environment under paragraph (7)(B). Rather they are requirements of a minimum nature intended to provide some protection on an interim basis until the paragraph (7)(B) regulations are promulgated.

The first new requirements of new section 3002(b) come into effect 270 days after enactment. This period prior to implementation is necessary to assure sufficient time for small quantity generators to become aware of and prepare for their responsibilities under this provision.

To this end, under paragraph (7)(B) the Administrator is also required to undertake activities to inform and educate small quantity generators of their responsibilities. Since many small quantity generators are small businesses, they may not be aware of their legal responsibilities unless the Agency makes an effort to inform them. Unless small quantity generators are advised of their responsibility, many of them will not comply with the rules. Thus, the Agency is required to inform them of their responsibilities, to the extent possible, to help assure compliance. In doing so, the Agency should continue working closely with the appropriate trade associations and trade press to inform small quantity generators. In addition, the Agency may also find it helpful to hold public meetings, seminars or workshops as another means to advise small quantity generators of their responsibilities.

LAND DISPOSAL LIMITATIONS

This section amends section 3004 of the Act and establishes a program to reduce significantly current dependence on land disposal as a waste management practice by prohibiting the land disposal of certain hazardous wastes. This program is based upon a finding that land disposal in general is the least desirable form of waste management because of the problems associated with assuring long-term containment of hazardous wastes. Therefore, in order to avoid substantial risk to human health and the environment, reliance on land disposal should be minimized and land disposal of hazardous wastes, particularly in landfills and surface impoundments, should be the least favored method for managing hazardous waste. Where treatment and recovery options are or will become available, there is no reason to accept the residual risk associated with land disposal facilities, even those meeting state-of-the-art standards.

Based upon these findings, new section 3004(b) directs the Administrator to promulgate regulations prohibiting the land disposal of hazardous wastes, except for those waste and land disposal

method combinations that the Administrator determines will be protective of human health and the environment. The section imposes on the Administrator a stringent standard for determining that the continued land disposal of certain wastes is advisable. The presumption will be against land disposal as a waste management technique.

A ban on one or more methods of land disposal for a specified waste does not necessarily mean that all methods of land disposal of that waste must be prohibited. For example, a particular hazardous waste might be prohibited from disposal in a surface impoundment or landfill but not from disposal in an injection well. Similarly, land treatment may be an acceptable disposal method for those hazardous wastes which can be biodegraded or transformed directly by the land treatment process or, if hazardous constituents remain after land treatment, where the hazardous constituents can be immobilized.

This scheme requires a two-step assessment. The first step involves an examination of the inherent characteristics of a waste. During this step, the Administrator shall consider the persistence, toxicity, mobility, and propensity to bioaccumulate of a particular hazardous waste or toxic constituents in the waste and the potential effect of the waste on the integrity of containment mechanisms (such as clay or synthetic liners or the fabric of an injection well or an injection zone). If a waste contains significant concentrations of one or more hazardous constituents that are highly toxic, highly mobile, or have a strong propensity to bioaccumulate, step one of the assessment results in a presumption that land disposal of that specific waste will be prohibited.

For each waste, these characteristics could be reviewed separately or in combination. For example, a particular waste or constituent may be so extremely toxic that the waste is a candidate for a ban on that basis alone. Another waste may be appropriate for a ban based on a combination of factors, for example because it is highly toxic and mobile. Also, a waste may not be mobile or toxic itself but could render other wastes more toxic or mobile, thus it may be appropriate to ban such a waste.

The Administrator shall also consider concentrations of waste constituents when reviewing a particular waste type. The concentration levels that are "significant" will, of course, differ for various constituents. The Administrator may establish "concentration limits" for waste constituents and then ban the land disposal of wastes which contain these constituents in excess of the stated concerntration limits.

Step two of the assessment involves a consideration of wastes identified in step one in combination with the various land disposal technologies. A presumption for prohibition of a waste made in step one may be overcome with respect to a particular method of land disposal if the Administrator determines that the particular method of land disposal of such waste will be protective of human health and the environment. This determination may be made if the Administration finds, to a reasonable degree of certainty, that no migration of the highly mobile, highly toxic, or highly bioaccumulative constituents will occur from the disposal unit or injection zone, for as long as the waste remains hazardous.

Interested members of the regulated community may demonstrate that a method of land disposal will be protective of human health and the environment because there will be no migration for as long as the waste remains hazardous. The requirement for an application by an "interested person" is intended to place the burden on the applicant or industry to prove that a specified waste can be safely contained in a particular type of individual disposal unit or injection zone. This demonstration could be made either by an individual applicant for a particular facility, or alternatively, it could be made for a class of facilities with like containment mechanisms and natural hydrogeological conditions. Such a demonstration could be made by a State with an approved underground injection control program, for injection wells under such program which meet the test of new section 3004(b)(2). This is a limited variance, requiring the applicant to sustain the burden of meeting this standard without the use of artificial barriers such as liners. Artificial barriers cannot provide the assurances necessary to meet the standard.

Protection of human health and the environment requires a demonstration that the disposal practice in question provide a "reasonable degree of certainty" that the waste can not escape to cause damage to human health of the environment. Wastes chemically decompose in a land disposal facility, although often this decomposition occurs very slowly stretching over centuries. The Administrator is required to find that the nature of the facility and the waste will assure that migration of the wastes will not occur while the wastes still retain their hazardous characteristics in such a way that would present any threat to human health and the environment. Absent such a finding the waste in question is to be banned from that type of disposal. In determining appropriate confinement from which migration shall not be allowed to occur, the terms disposal unit or injection zones should be construed not in terms of the property ownership but in terms of the overall environmental integrity of the disposal practice, keeping in mind, in particular, the potential for contamination of groundwater or surface water resources. Injection of hazardous wastes into deep wells allow dispersion of these wastes in a defined strata deep beneath the surface in a pattern totally without regard to the land ownership of the surface above. The disposal practice must be viewed in terms of its environmental and human health consequences and assure that, to a reasonable degree of certainty, no migration of hazardous constituents can occur for as long as the wastes remain hazardous. The phrase "reasonable degree of certainty" is intended to discount only the unpredictable future events. Certain geologic events such as earthquakes and floods, the likelihood of which can be predicted, should be considered by the Administrator when determining if migration will occur.

If the Agency reviews a particular waste and finds that it does not meet the step one criteria, of if EPA determines that a prohibition is not warranted for certain methods of land disposal, it must publish the basis for that determination in the Federal Register. Thus, each time the Agency finds that a waste should not be prohibited from some or all methods of land disposals, it must publish

an explanation of why those methods of land disposal are protective of human health and the environment.

These are several key terms used in the step one standard for prohibiting wastes. These terms are "significant concentrations of hazardous constituents," "highly toxic," "highly mobile," and "a strong propensity to bioaccumulate." Because of their highly technical nature, definition of these terms is left to the Agency. However, the word "highly" or "strong" should not be read to be unduly restrictive. Land disposal is not appropriate for many wastes, particularly wastes containing hazardous constituents significantly in excess of existing ambient standards. The Agency may set up a ranking system for assigning priorities to wastes based on these characteristics and then determine the appropriate cut-off point for determining which wastes are candidates for prohibition. Alternatively, EPA could develop a set of characteristic tests for toxicity, mobility, and propensity to bioaccumulate, similar to the characteristic tests now used to determine whether a waste is hazardous. These characteristic tests would be used for determining which wastes are candidates for land disposal prohibitions.

A key term for step two, "injection zone" has an existing usage in the underground injection control program under the Safe Drinking Water Act. Its meaning here is intended to be same as defined in 40 CFR Part 146.3.

Treatment standards

Treatment of hazardous wastes will sometimes result in residuals that must be land disposed. Therefore, in combination with promulgation of rules prohibiting one or more methods of land disposal of a hazardous waste, the Administrator is directed to promulgate regulations establishing what would essentially be "pretreatment standards" for hazardous wastes prior to allowing land disposal. These pretreatment standards are essential to implementing a successful program of land disposal prohibitions.

For example, for a highly mobile waste, the Administrator could allow land disposal if the waste were stabilized so as to reduce its mobility. This type of standard could be expressed in various ways. It could be stated as a measure of the reduced mobility that must be achieved, or as the type of pretreatment that must be undertaken prior to land disposal, or as a maximum concentration of the waste constituents which contribute to the waste's mobility. In the latter case, this determination would be made in conjunction with the determination of significant concentrations in step one.

A requirement for treatment of hazardous constituents under other statutes is another factor that may be considered. For example, the Administrator should impose, as a condition of land disposal, a treatment requirement that is consistent with categorical pretreatment standards required pursuant to the Clean Water Act. Increased regulation under the Solid Waste Disposal Act should complement and reciprocally re-enforce regulations under the Clean Water and Clean Air Acts. It makes little sense to improve or accelerate regulations under those statutes only to have environmental goals frustrated by loopholes allowing less stringent treatment under the Solid Waste Disposal Act.

There are certain hazardous wastes with constituents (e.g., some heavy metals) that are highly toxic or bioaccumulative which cannot be transformed to a less hazardous chemical form through treatment. In these cases it would be preferable to recover these constituents. Where recovery is not technologically feasible, however, such wastes should be treated using the best available treatment technologies (e.g., stabilization or fixation) to immobilize the highly toxic or bioaccumulative constituents prior to land disposal.

The dilution of wastes by the addition of other hazardous wastes or any other materials during waste handling, transportation, treatment, or storage is not an acceptable method of treatment to reduce the concentration of hazardous constituents. Only dilution which occurs as a normal part of the process that results in the waste can be taken into account in establishing concentration levels.

Schedule

Paragraphs (4), (5), and (6) of new section 3004(b) contain schedules for the three phases of the program for making determinations as to which wastes to prohibit from which land disposal methods. The Agency has stated in hearings that it plans initially to review dioxin-containing hazardous wastes and spent solvent hazardous wastes numbered F001, F002, F003, F004, and F005 in regulations promulgated pursuant to section 3001 (40 C.F.R. 261.31). Therefore, these wastes have been selected to be reviewed first. The Agency is directed to determine by July 1, 1985, if prohibitions of one or more methods of land disposal of these wastes is appropriate.

Paragraph (5) contains a list of hazardous wastes the Administrator must review, within 32 months of enactment, and consider for land disposal prohibition. These hazardous wastes and specified concentration levels were selected primarily because the State of California has conducted a rulemaking procedure and begun implementing restrictions on these wastes. The specified concentration levels—10,000 times the Interim Primary Drinking Water Standards—are a conservative starting point for the analysis. These wastes at these concentrations clearly meet the "highly toxic" standard. The specified concentrations are not intended to be binding on the Agency. Indeed, the Administrator may substitute more stringent concentration levels for the levels specified in paragraph (5).

The Administrator may, in reviewing particular wastes on this list, determine that some subset of a listed waste such as halogenated organic compounds should be prohibited from certain forms of land disposal, while other examples of a generally listed category are appropriate for land disposal.

The schedule for the third phase of the program is contained in paragraph (6). This paragraph directs the Administrator to publish within 12 months of enactment a schedule for reviewing all hazardous wastes listed under section 3001. For the purposes of section 7002, the issuance of the schedule is a mandatory duty. This schedule must provide for review and determination of whether or not to prohibit land disposal of one-third of all listed wastes within 32 months of enactment, two-thirds of all listed wastes within 42

months of enactment, and all listed wastes within 52 months of enactment. Even if the schedule is issued late, these deadlines are binding. The wastes already covered in paragraph (4) shall not be included as part of this schedule. Any new wastes listed after enactment must be reviewed and a determination of whether or not to subject them to a land disposal prohibition must be made within 32 months after their listing. In addition, within 52 months of enactment, the Administrator must determine whether or not to prohibit the land disposal of hazardous wastes identified by any toxicity characteristic. This includes the existing extraction procedure toxicity characteristic or revisions to its as well as any additional toxicity characteristics that may be developed by the Agency prior to that time, including any characteristics developed under the amendments contained elsewhere in this bill.

In making these determinations, the Agency should not start from the point of having to justify the imposition of a land disposal restriction. The presumption is that land disposal is the least preferred management method. This makes the Agency's decision far simpler than if the Act were neutral as to different management options. The Agency should not start from an assumption that it must begin a new research effort or regulatory analysis before any determinations can be made. There is an information base at the present time to begin to make the phased determinations required by this section. This includes the information from the years of work EPA and others have devoted to developing a degree of hazard system and the extensive analysis on land disposal, including research and development on the effects of wastes on different liners and the behavior of wastes when placed in the ground, as well as the work done by the State of California. The Agency should also utilize its data on incidents of groundwater contamination from hazardous wastes, and wastes found in sites on the National Priority List.

Effective date of prohibitions

A prohibition of one or more methods of land disposal of a specified hazardous waste shall be effective immediately upon promulgation unless the Administrator determines that there does not exist adequate alternative treatment, recovery or disposal capacity which is protective of human health and the environment. The prohibitions should go into effect immediately upon promulgation whenever and wherever possible. The Agency should expend every effort to assure that unsafe practices are terminated as quickly as possible. The purpose of new section 3004(b)(3) is to assure that sufficient capacity for alternative treatment, recovery or disposal is available to accommodate the wastes affected by a prohibition. This provision allows the Administrator to grant a general two-year extension of the prohibition deadline if necessary to assure the availability of alternative treatment, recovery or disposal capacity. Additionally, the alternative capacity must be determined to be protective of human health and the environment. The availability of adequate storage capacity (either in or on the land or in tanks and containers) is not an acceptable alternative capacity for the purpose of determining whether to establish an early effective date. Rather, alternative capacity must be for the treatment, recovery

(including legitimate use, re-use, and recycling), or disposal of the waste.

Claims of inadequate capacity can become a "self-fulfilling prophecy" if the regulated community believes that land disposal deadlines will normally be extended and that immediate investment in development of alternative capacity will be premature and economically non-productive. Extensions based on capacity shortfalls should be infrequently granted. Given consistent regulatory and economic incentives, adequate capacity will be quickly developed.

The available capacity determination is to be done on a national basis. Otherwise, different regions of the country would be receiving varying degrees of protection and could be used as dumping grounds for the rest of the country. In addition to creating "pollution havens", an attempt to regionalize capacity considerations would place industries within regions subject to the prohibition at a competitive disadvantage. Furthermore, regionalization would generate the kind of self-fulfilling capacity shortfalls discussed above. A nationwide availability of capacity approach might necessitate the transportation of wastes to treatment facilities over significant distances; however, this kind of waste transportation is occurring today. With the elimination of cheap, unsafe land disposal alternatives, treatment capacity and inexpensive "milk run" style collection services will develop to meet regional demands.

In order to encourage the development and construction of alternative capacity, the effective date of prohibitions should not extend beyond two years except in narrowly defined circumstances. Therefore, extensions beyond an effective date established by the Administrator may only be granted on a case-by-case basis for one year and renewable for no more than one additional year (i.e., a maximum of two years total), where an applicant demonstrates to the Administrator that there is a binding contractual commitment to construct or otherwise provide such alternative capacity but due to circumstances beyond the control of the applicant, such alternative capacity cannot reasonably be made available by the effective date. This provision is intended only to accommodate those making a good faith effort to meet the effective date but who are unable to do so due to circumstances beyond their control.

The Administrator should use this discretion sparingly and only in cases of an extraordinary nature. It is not intended that a generating industry, for example, could be allowed to continue to have its wastes disposed of in an otherwise prohibited manner solely by binding itself to using a facility which has not been constructed. Thus, when an "alternate technology" facility is operating at less than maximum capacity, the Administrator should determine that alternative capacity is available whether or not an individual company applying for an extension is constructing its own alternative facility. In such cases, the company should be required to use the available alternative capacity until such time as its own capacity has been constructed and permitted.

Additional conditions

In order to assure timely and consistent application of the program of land disposal limitations, some additional conditions have

been included in paragraphs (8) and (9) of new section 3004(b). New section 3004(b)(8)(A) addresses the concern that hazardous wastes placed in treatment or storage surface impoundments comply with at least minimum standards to protect human health and the environment. Under this provision, a hazardous waste prohibited from disposal in a surface impoundment may be treated or stored in a surface impoundment only if the impoundment has at least one liner. (Because of new section 3004(f), this principally deals with existing impoundments.) The requirements of this section are a minimum and do not necessarily meet the Agency's responsibility to assure that the storage or treatment of the prohibited hazardous waste is protective of human health and the environment. Specifically, the reference to "at least one liner" in this section is intended to mean a liner of the type called for in 40 CFR 264. The Agency has defined a liner to mean any barrier which restricts the migration of a waste from the disposal zone. A loose interpretation of this language could mean that *in situ,* highly permeable soils could be interpreted to constitute a "liner" because even these soils would "restrict" the movement of wastes into groundwater. Such an interpretation, however, is unacceptable. The intent is to require at least a single liner either of a synthetic or natural material with a very low permeability such as that called for in the July 26, 1982, regulations. The Administrator may impose additional requirements on such impoundments as may be necessary to eliminate or mimimize the potential for waste migration.

Under new section 3004(b)(8)(B) placement of hazardous wastes in a surface impoundment or waste pile for more than six months is to be regulated as disposal, whether the ostensible purpose is for treatment and storage or for disposal. Many surface impoundments and waste piles have been designated as long-term "storage" rather than "disposal" facilities, although they have indistinguishable environmental consequences. Thus, in new section 3004(b)(8), only short-term storage of up to six months or treatment performed within that same time period avoids being defined as disposal. Hazardous wastes may not be circulated during a six month period in a surface impoundment facility where the liner may become contaminated with the waste. In such cases the Agency shall require the facility operator to remove that contaminated portion of the liner within six months or discontinue use of the surface impoundment for storage or treatment.

As an overall strategy under paragraph (8), the Agency should encourage operators of unlined facilities to drain and retrofit these facilities as quickly as economically feasible. This paragraph is intended to prevent the use of unlined facilities or facilities whose liners may become contaminated with hazardous wastes from remaining in operation and receiving such wastes.

Paragraph (9) contains certain restrictions that apply if the Administrator fails to promulgate regulations regarding wastes referred to in paragraphs (4) (dioxin-containing hazardous wastes and spent solvent hazardous wastes numbered F001, F002, F003, F004, and F005) and (5) (the list of wastes adopted from the California program). If the Administrator fails to determine whether a land disposal prohibition is warranted for these wastes by the specified deadline (by July 1, 1985, for paragraph (4) and by the date thirty-

two months from the date of enactment for paragraph (5)), then beginning not later than six months after these deadlines, such wastes may be disposed of in a landfill or a surface impoundment only if the unit is in compliance with the requirements of section 3004(f)(1), as added by these amendments. That section requires that new or expanded landfills and surface impoundments are at least double-lined and have a leachate collection system above (in the case of landfills) and between such liners or that the facility owner or operator demonstrates that alternative design and operating practices, together with locational characteristics, will prevent the migration of hazardous constituents into ground-water or surface water at least as effectively as such liners and leachate collection systems would at the same location. In addition, such units must be monitoring groundwater, consistent with the provisions of new section 3004(1). These requirements remain in effect until such time as the Administrator makes a determination that a prohibition of land disposal of these wastes is not warranted. This provision is intended to provide temporary protection against the migration of particularly dangerous wastes. However, it should not be considered a substitute for the land disposal prohibitions intended by this section. The Agency is expected and required to meet its statutory deadlines.

The requirements of paragraph (9) do not apply to contaminated soil and debris from the cleanup or removal of any release of a hazardous substance, even if that soil or debris would otherwise fall within one of the categories of waste referred to in paragraphs (4) and (5). This exception was included to assure that the clean-up of contaminated sites under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) (Public Law 96–510) and removal and remedial actions and clean-ups undertaken pursuant to orders issued under section 7003 of the Act and section 106 of CERCLA could proceed in an orderly fashion.

A question was raised during the Committee's consideration of this bill as to whether the restrictions on land disposal contained in this section are intended to apply to uranium or thorium tailings subject to regulation under the "Uranium Mill Tailings Radiation Control Act of 1978" (UMTRCA), as amended. This section is not intended to affect the statutory program that has been established by Congress in UMTRCA, as amended. Under section 1004(27) of the Solid Waste Disposal Act, "solid waste" (the definition on which "hazardous waste" is based) excludes "source, special nuclear, or byproduct material as defined by the Atomic Energy Act". Section 11e of the Atomic Energy Act, as amended, defines "byproduct material" to include uranium and thorium tailings. Accordingly, uranium and thorium tailings are not hazardous wastes subject to the restrictions on land disposal contained in new section 3004(b). Requirements under section 84 and 275 of the Atomic Energy Act are to assure the protection of human health and the environment, and need not comply with the special provisions of new section 3004(b) of the Solid Waste Disposal Act.

Liquids in landfills

A new subsection (c) is being added to section 3004 to require the Agency to promulgate final regulations which minimize the dispos-

al of liquid hazardous waste in landfills. The Agency currently regulates liquid waste in two forms: (1) bulk liquids and (2) containerized liquids (e.g., 55 gal. drums containing liquids). Containerized liquids are of particular concern because metal drums ultimately, at some unpredictable time, decay. If the drums collapse or leak after the post-closure care period, significant uncontrolled releases and subsidence of the cover could occur at a time when the leachate collection and removal system is no longer operated, the ground water may no longer be routinely monitored, and the final cover is no longer maintained. Bulk liquid hazardous wastes in landfills are also of concern because wastes in liquid form are relatively mobile, landfill liners can be damaged during placement of wastes, and hydrostatic pressures increase the likelihood of leachate escaping. Alternative technologies are available to deliquify wastes prior to disposal in a landfill. Therefore, the Agency is directed to prohibit bulk liquid hazardous wastes and minimize containerized liquids in landfills.

Liquid wastes means both "liquids" in the conventional sense of the term (i.e., the state of matter in which a substance exhibits a characteristic readiness to flow, little or no tendency to disperse, and relatively high incompressibility) and the free flowing or liquid portion of sludges that readily separates under gravitational forces. The latter meaning EPA adequately refers to as "free liquids" which is defined in 40 CFR 260.10 as "liquids which readily separate from the solid portion of a waste under ambient temperature and pressure." The current hazardous waste landfill regulations promulgated by EPA use the term "free-standing liquid" as well as "free liquids" which EPA describes in the preamble (47 FR 12317, March 22, 1982) as "those (liquids) that form distinct pools or layers within a container." Thus, "free-standing liquid" is a subset of "liquid" and "free liquids" and, therefore, is covered by these two terms.

The Agency is currently evaluating two test protocols it is developing to define the term "free liquids": a paint filter test and an inclined plane test. Because of the technical aspects of this, the Agency is authorized, in promulgating its final regulation under this subsection, to define what is meant by liquids and free liquids, and to specify any test protocols the Agency deems appropriate. The term "minimize" is used in the amendment to give the Agency the flexibility to develop a test and rule that restricts or limits liquid hazardous waste or free liquids, yet is practical both to achieve and to measure for compliance determinations (as waste is received and disposed of during inspections). This flexibility is not intended to give authority to allow significant quantities of liquid hazardous wastes to be disposed of in landfills. Rather, it is intended to allow the Agency to deal from a practical standpoint with very small quantities of liquid wastes and with difficult wastes (e.g., gelatinous wastes and sludges with high moisture content but little free flowing moisture under gravitational forces).

As discussed previously, the goal of minimizing liquids is to reduce the potential migration and leachability of hazardous constituents, and the potential for subsidence. To this end, the preferred treatment methods are decanting or deliquifying (via centrifuge, vacuum drums or conveyor, or filter presses, etc.), and mixing

with agents (e.g., bentonites and chemical reagents) that result in a material that provides structural stability as well as removal of "free liquids." Unacceptable mixing agents include sawdust, municipal waste, shredded paper, and other absorbent materials that biodegrade, and thereby collapse and release free liquids. Also unacceptable are absorbent materials that have sponge-like behavior, i.e., that absorb liquids but readily release them again under pressure (as may be expected in a landfill), such as sawdust, fly ash, shreeded paper, and certain vermiculites. Such materials also tend to produce free-standing liquids in containers during shipment. The Agency is expected to develop and publish criteria distinguishing between acceptable and unacceptable mixing agents or to test and publish a list rating mixing agents and distinguishing between acceptable and unacceptable agents, based on the above guidance. These amendment require that free liquids be minimized by means other than the addition of absorbent material, where technologically feasible.

The Administrator may continue to allow the disposal in landfills of small containers of hazardous waste placed in overpacked drums according to EPA specifications issued on November 17, 1981. This method of disposal—generally known as disposal by lab pack—is commonly used by laboratories which produce small amounts of many different wastes. These wastes are collected in small containers ranging in size from one ampule to five-gallon containers. This inside containers are surrounded by a sufficient quantity of compatible absorbent material, such as vermiculite, and overpacked in large drums (usually 55 gallon) prior to disposal in a secure landfill. EPA regulations require that the inside containers be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by, the waste held therein. In addition, the placement of incompatible wastes in the same outside container is prohibited. The regulations also ban the landfill disposal of reactive wastes in lab packs unless the waste is rendered non-reactive prior to packaging.

Finally, language is included in these amendments to assure that the current regulations remain in effect and are not temporarily suspended pending further revisions or reviews.

Ban on dust suppression

A new subsection (d) is added to section 3004 to prohibit the use of contaminated waste or used oil or other material for dust suppression or road treatment. It was such use of oil mixed with dioxin that created the serious situation at Times Beach, Missouri. These amendments are designed to prevent the recurrence of such situations. Such use of hazardous waste contaminated materials is flatly banned, as a matter of Federal law.

Ban on certain wells

A new subsection (e) is added to section 3004 to prohibit the disposal of hazardous waste by underground injection into or above any formation which contains, within one-half mile of the well used for such underground injection, an underground source of drinking water. The one-half mile distance refers to the distance between the aquifer and the injection well, not the distance be-

tween the injection well and a withdrawal source. An "underground source of drinking water" means actual drinking water sources as well as high quality aquifers such as those containing water with less than 10,000 milligrams per liter of dissolved solids.

Liners and leachate collection and removal systems at interim status facilities

The current hazardous waste land disposal regulations require liners at landfills, surface impoundments, and waste piles, and leachate collection and removal systems at landfills and waste piles after permitting, unless exempted or waived. The bill amends section 3005(e) to require interim status facilities to install liners and leachate collection and removal systems prior to permitting at each new unit, each replacement unit, and at lateral expansions. Waste pile units must meet the liner and leachate collection system requirements of current regulations for new facilities. Landfill and surface impoundment units must meet the requirements of new section 3004(f). New units, replacement units, and lateral expansions are defined for purposes of the requirements of this amendment as those units or lateral expansions within the waste management area of a facility defined in the Part A permit application which first receive waste after enactment of these amendments. The requirements then apply to all such facilities which will receive waste after the date six months after enactment of the Solid Waste Disposal Act Amendments of 1983. Landfill trenches or cells, impoundments, or waste piles not operational by the date of enactment are required to meet standards for new units (including the new standards for landfills and impoundments) if the units will continue to receive hazardous waste six months after enactment. After that date, waste may still be received at units in existence at the time of enactment, but all new units, replacement units, and lateral expansions must have the required liner and leachate collection system to receive wastes after that date.

A replacement unit includes a surface impoundment that is taken out of service and emptied by removing all or substantially all the liquid and solid waste in it. Before this impoundment may be reused, it must be lined or otherwise designed according the new minimum technological requirements mandated in this bill. Similarly, a replacement unit can be a waste pile that is taken out of service and all or substantially all waste is removed from it. Before the pile may be reused, it must meet the liner and other design requirements of EPA's permit regulations.

Since the liner and leachate collection and removal system (or the possible demonstration of equivalent protection) may be implemented outside the permit process for interim status facilities, of the rules may not be adequately complied with. The Agency should not require retrofitting at the time of first permitting for units that were lined during interim status provided the liner and leachate collection and removal system were in compliance with the law and the Agency's regulations and guidance and were installed in good faith. (This does not preclude the Agency from requiring installation of new liners at some later time if, for example, the unit is in violation of the ground-water protection standard or liner requirements are strengthened.) Anyone who follows the EPA techni-

cal guidance documents for surface impoundments, landfills, or waste piles is presumed to have acted in good faith. Retrofit should be required in cases of fraud or gross noncompliance. Examples of fraud or gross noncompliance includes cases where: a liner was not installed or a liner not in compliance with EPA guidance document specifications was installed; a leachate collection and removal system was not installed or was not designed according to the formula presented in the technical guidance documents to meet the 30 cm (one foot) leachate depth requirement; or there is grossly inadequate documentation of any major design feature or construction activity.

The owner or operator of a new unit or lateral expansion is required to provide sixty days notice to the Administrator before the unit receives waste, so the unit can be inspected by EPA to assure compliance with the requirements of this subsection or so that EPA or the State can require full permitting before operation. Failure to provide EPA with the requisite notice will result in the elimination of the "good faith" protections of this provision.

The amendment to section 3005(e) of the Act requires liners, leachate collection and removal systems or, in the case of waste piles, a demonstration of equivalent protection. The reference to "equivalent protection" is to authorize the application of variances to the liner and leachate collection system that exist in current EPA regulations (other than the "existing portions" variance), to these units. For landfills and surface impoundments, new section 3004(f) allows the demonstration of the adequacy of alternative practices. However, waivers to the liner and leachate collection system requirements at new units, replacement units, and lateral expansions of all interim status facilities cannot be self implementing, i.e., there must be a mechanism for advance approval by EPA of a waiver demonstration. The Agency is directed to establish a mechanism for reviewing such demonstrations. No unlined new or replacement units or lateral expansions may take wastes after the date six months from the date of enactment unless they have an EPA-approved waiver.

It is recognized that EPA may revise the liner and leachate collection and removal system rules from time to time to increase protection for human health and the environment, and wording has been added to provide for this. Any such changes must apply equally to new units, replacement units, and lateral expansions at interim status facilities after the six month period and prior to permitting as well as after permitting.

Monitoring and corrective action

This amendment adds a new subsection (g) to section 3005 to correct a serious deficiency in land disposal facility regulations which allowed waste management units or entire facilities to escape monitoring and cleanup requirements simply by not accepting waste after January 26, 1983. Reference to "units" as opposed to "facilities" is designed to assure that partial closures of facilities are subject to monitoring and clean-up requirements.

The new subsection applies the requirements for corrective action, groundwater monitoring, and unsaturated zone monitoring, now applicable to new facilities, to all units of landfills, surface im-

poundments, land treatment facilties, or waste piles which received hazardous waste after July 26, 1982, the promulgation date of the land disposal regulations.

MINIMUM TECHNOLOGICAL REQUIREMENTS AND PERMIT LIFE

The reported bill adds a new section 3004(f) to the Solid Waste Disposal Act, establishing minimum technological requirements for landfills, surface impoundments, and incinerators. The purpose of this new subsection is to minimize the migration of hazardous wastes into the environment. Hazardous waste facility control and measurement technologies (including monitoring), as well as information on the capabilities and limitations of such technologies, are continually improving. This amendment requires the Administrator to revise the regulation under section 3004 from time to time as necessary to take into account those technological improvements. As information becomes available, the Agency is to expeditiously initiate rulemaking to amend or add to the treatment, storage, and disposal regulations.

Because of the necessity to minimize migration of hazardous waste, and the availability of particular technologies, the amendment establishes several minimum requirements for landfills, surface impoundments and incinerators.

Double liner requirement

Any landfill or surface impoundment permit issued after the enactment of these amendments for a new facility, or a new unit, replacement unit, or lateral expansion at an existing facility, must require the installation of two or more liners and a leachate collection system. In both landfills and surface impoundments, there must be a leachate collection system between the liners, operating in part as a leak detection system. In addition, a landfill must have a leachate collection system above the uppermost liner. Groundwater monitoring is also required for all landfills and surface impoundments, consistent with section 3004(l). This amendment is intended to correct the deficiency in the existing regulations allowing double liners and groundwater monitoring to be alternatives.

This requirement is applicable to each new landfill or surface impoundment (including each new landfill or surface impoundment unit at an existing facility), each replacement of an existing landfill or surface impoundment unit, and each lateral expansion of an existing landfill or surface impoundment unit, for which a completed application for a permit under section 3005(c) is received after the date of enactment of the Solid Waste Disposal Act Amendments of 1983. A completed application is what is known in the EPA regulations as a Part B application, that is found by the appropriate Regional Administrator or State to contain the applicable components of an application as identified in any Agency or State guidances, of acceptable quality for review.

This multiple-liner and groundwater monitoring requirement applies to all waste received after issuance of a permit to any such landfill or surface impoundment unit. This means all new landfills and surface impoundments, and new units, lateral expansions, or replacement units at existing landfills and surface impoundments

must have multi-liners and groundwater monitoring. (See section 3005(e) as amended for application to interim status facilities.) Existing units with wastes in place on the date of enactment of these amendments need not be retrofitted to continue to receive waste. Where all or substantially all waste is removed, the unit is a replacement unit.

This provision does not require that both liners be of synthetic material. Well-designed compacted natural materials of very low permeability may be adequate. The Agency must define in regulations the type of liners (e.g., natural, synthetic, or both) and the specifications or performance criteria for the design of the liners, leachate collection and removal systems, and groundwater monitoring systems. However, to avoid bringing the permitting process to a standstill until such time as EPA issues these new regulations, permitting of new or replacement landfill and surface impoundments units in accordance with this amendment (i.e. with the required double liners and leachate collection systems) can continue under the existing section 3004 specifications. The Agency should revise the regulations as quickly as possible to specifically require the double liners, leachate collection systems, and groundwater monitoring mandated by this amendment. However, until new regulations are promulgated, permits may be issued incorporating the double liner systems described in the existing regulations in conjunction with the existing groundwater monitoring program (not currently required for double-lined facilities). Permit applicants can refer to existing EPA guidance documents for specifications for acceptable double liner systems.

The requirements of this provision do not apply to injection wells, waste piles (which by regulatory definition are only used for storage), or land treatment units. Land treatment units utilize a different control strategy for managing hazardous wastes than surface impoundments and landfills, thus liners are not required for land treatment units.

Alternative design and operating practices

The amendment authorizes exceptions to the double liner and leachate collection system requirement (but not the groundwater monitoring requirement) only in those cases where the owner or operator can demonstrate to the satisfaction of the Administrator on a case-by-case basis for a particular landfill or surface impoundment, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents into groundwater or surface water at least as effectively as the prescribed liners and leachate collection systems. The test for granting this exception is whether the owner or operator can demonstrate that at that specific site, the proposed alternative technology can prevent migration at least as effectively as would double liners and leachate protection. The burden is on the owner or operator to make such a case. Knowledge of the fate and transport of hazardous constituents into the environment is limited, and uncertainties of evidence in this regard must be resolved in favor of the application of the statutory double-liner requirement.

There are currently a relatively few facilities located throughout the country which, because of their unique hydrogeological loca-

tions and type of operation, may successfully make this demonstration. One other possible candidate for this exemption would be monofills, or landfills containing a single type of waste, as described in the preamble to EPA's July 26, 1982, land disposal regulations. The Agency is evaluating the feasibility of monofilling various wastes, including foundry wastes, and determining what minimum landfill requirements should apply. Nothing in this new subsection should be seen to interfere with this evaluation.

In making and evaluating demonstrations under this provision it is important to keep in mind that liners are a necessary component in a system designed to detect and collect leachate containing hazardous constituents. Demonstrations for an exception should not be based exclusively on a showing that an alternative to the double liner and leachate collection system in conjunction with the naturally occurring locational characteristics will assure containment equivalent to synthetic or other emplaced liners in conjunction with the naturally occurring locational characteristics, since long-term or permanent containment is not the main objective of the double liner-leachate collection system requirements.

Mining wastes

Also included in this amendment is a provision which authorizes the Administrator to promulgate an exception to the double liner-leachate collection system requirement for certain wastes generated by the mining industry. The 1980 amendments to the Solid Waste Disposal Act (section 3001(b)(3)(A)(ii)) deferred from coverage under subtitle C, solid wastes from the extraction, beneficiation and processing of ores and minerals including phosphate rock, and overburden from uranium mining, pending completion of the studies mandated under section 8002 (f) and (p). Those EPA studies have not been completed. When the studies are completed, the EPA is required to determine which of those wastes should be regulated under subtitle C.

Solid wastes from mining and mineral beneficiation and processing are primarily waste rock from the extraction process and crushed rock, commonly called tailings, produced from concentrating steps such as grinding, crushing, sorting, sizing, classification, washing, dewatering, amalgamation, gravity treatment, flotation, agglomeration and cyanidation. The 1980 amendments covered wastes from the initial stages of mineral processing, where concentrations of minerals of value are greatly increased through physical means, before applying secondary processes such as pyrometalurgical or electrolitic methods. Smelter slag might also be included. Massive volumes of this waste ore are produced annually at mining and mineral processing facilities—roughly estimated by the American Mining Congress (AMC) to be approximately 1.75 billion tons in a typical year, which is clearly significantly greater in volume than the solid waste generated by all other industries combined. These wastes were considered "special wastes" under the 1978 proposed regulations as being of large volume and relatively low hazard.

On an individual mine basis, past AMC estimates for a typical lead/zinc underground mine producing 50,000 tons of metal per year requires removal of as much as 5,000–6,000 tons per day of

rock. That tonnage breaks down as follows: roughly 1,000 tons per day of development rock, which is the rock that has to be removed to reach the ore, and 4,000 to 5,000 tons of mineral bearing ore. Of that 4,000-5,000 tons of ore, 150 to 200 tons of mineral concentrate are produced. Because of such large volumes of waste and rock tailings, mine surface impoundments and landfills typically cover large areas close to the mine. These land disposal facilities, unlike those of other industries, often cannot be dredged, bulldozed or dug out of the earth, and cover very large areas where the corresponding natural features, such as boulders, trees, stumps, depressions, and elevations, cannot always be reasonably cleared or excavated in connection with disposal. Maintaining the integrity of a liner with the massive weight of typical mining waste would be extremely difficult. Consequently, lining such areas may be impractical in many cases.

If landfills and surface impoundments containing mining and mineral processing wastes are determined by the Administrator to be appropriate for regulation under subtitle C after conclusion of the studies mandated under section 8002 (f) and (p) of the Act, new section 3004(f) requires groundwater monitoring at the site and whatever other requirements are necessary for the landfill or impoundment to assure the protection of human health and the environment. The Administrator must determine, however, whether to modify the statutory double liner-leachate collection system requirement for such mining wastes, and if he determines that requirement is not necessary to protect human health and the environment, he may promulgate substitute requirements. The amendment, therefore, preserves the performance standards of subtitle C but provides the Agency with the flexibility it needs to determine the most appropriate approach to manage the particular hazardous waste at the site. The amendment does not preclude EPA from requiring double lining of landfills or surface impoundments for mining and mineral processing wastes in those cases where it is appropriate to do so.

In making a determination on whether or not an exception to the double liner requirement for mining waste is appropriate, EPA is to conside whether the modified requirements assure protection of human health and the environment. Practical or economic considerations can only be used to select among alternative requirements which assure protection of human health and the environment.

The mining waste modification authority of this amendment does not cover wastes specifically listed as hazardous wastes prior to the 1980 legislation because of their hazardous nature.

Incinerator requirements

New section 3004(f)(2) requires that all incinerators receiving permits after enactment of these amendments attain at least the destruction and removal efficiency required by the current regulations.

Incineration of hazardous waste must also be regulated in a way that minimizes migration of hazardous constituents into the environment, reflects the best available technology and thereby assures protection of human health and the environment. This is particu-

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larly important given the prohibitions on land disposal required by this bill. It is likely that the volumes of wastes that will be incinerated will increase significantly as a result of these bans.

The performance standard of 99.99 percent destruction and removal, efficiency required by the current regulations represents a performance level that is achievable by virtually any modern commercial incinerator. In view of the inherent uncertainty associated with analysis of impacts on human health, it is necessary to statutorily establish such a standard as a minimum. Higher performance levels may be established if analysis suggests that such higher levels are necessary to provide protection for human health and the environment. Regulations must also be revised to reflect improvements in control or measurement technology.

Locational criteria

New section 3004(f) also requires the Administrator to promulgate criteria for the acceptable location of new and existing treatment, storage, and disposal facilities. A significant deficiency in the current land disposal regulations is the lack of hydrogeological locational standards. Existing standards are limited to provisions dealing with flood plains and fault zones. Studies recently conducted by the Agency have emphasized the importance of locational factors in determining the environmental performance of hazardous waste facilities. The broadened criteria should address such factors as proximity to groundwater or surface waters and, in particular, potential drinking water supplies (including sole source aquifers), wetlands, and population concentrations. These criteria are to establish whether locations are acceptable for existing facilities, as well as for new facilities.

Permit life

The bill amends section 3005(c) of the Act to require that any permit for a treatment, storage, or disposal facility be for a fixed term, not to exceed ten years in the case of land disposal facilities, incinerators, or other treatment facilities. This amendment was in response to a recent EPA proposal to amend its current regulations and issue permits for the life of the facility. With the advancing state of technology and the long projected useful life of many of these facilities, it is preferable to limit permit life to the minimum period consistent with the cost and administrative burden of issuing a permit. Ten years is the maximum acceptable duration for permits involving land disposal, incinerators, or evolving treatment technologies.

Limited permit duration will assure that facilities are periodically reviewed and requirements for them upgraded to reflect the current state of the art. The amendment to section 3005(c) also requires the permitting authority in any permit renewal to consider improvements in the state of control technology and measurement technology, as well as changes in applicable regulations. Such improvements and changes must be incorporated in the renewed permit.

In addition, any permit for a land disposal facility must be reviewed after five years. This review, while not involving the full procedures of a permit renewal, must be thorough and based in

part on inspections of the facility. The required review of a land disposal facility permit every five years is intended to assure that no facility is allowed to operate in a manner which does not meet the standards of EPA's (or the State's) most current applicable regulations, which is not consistent with improvements made in hazardous waste control and management approaches for such facilities made since issuance of the permit, or which does not adequately protect human health and the environment. In conducting such reviews and in deciding whether or not to modify the permit, the Agency (or the State) shall consider any changes that may have occurred in operation of the facility since the permit was issued, standards and requirements of current regulations under sections 3004 and 3005, advances in hazardous waste control practices and technology since permit issuance, and other information concerning the impact of the facility on human health and the environment. The Agency (or the State) shall modify the permit if examination of any of these factors indicates that such action is appropriate. Where the Agency (or the State) determines that a permit modification is required, the Agency (or the State) shall follow its current procedures for such modifications. Nothing in the law or this amendment precludes the Administrator from modifying any permit at any time during its term.

This provision also gives the Administrator, or the State if it has been authorized to issue permits, the authority to add permit terms and conditions beyond those mandated in regulations, if, in the judgment of the Administrator (or the State, if the State is issuing the permit), such terms and conditions are necessary to protect human health and the environment. This amendment gives the Agency the authority to address special cases and unique circumstances. The provision is designed to deal with factors or situations different from those addressed in the regulations. It can also be used to address areas already covered by the regulations in order to incorporate new or better technologies or other new requirements in permits, where EPA intends to add such technologies or requirements to the regulations but has not yet issued a final regulatory amendment. The permitting authority is not required to impose every condition suggested by commentators on proposed permits.

CONTINUING RELEASES AT PERMITTED FACILITIES

The reported bill adds to section 3004 of the Act a new subsection intended to assure that appropriate corrective action is taken to protect human health and the environment from any past, present or future release of hazardous waste from a permitted hazardous waste facility.

New subsection 3004(g) requires that corrective action be taken in response to all releases of hazardous waste (or constituents of hazardous waste) from any solid waste management unit at a treatment, storage, or disposal facility seeking a permit, regardless of when the waste was placed in the unit or when the release occurred. This requirement is effective immediately upon the enactment of the bill; the Administrator is directed to promulgate new standards implementing the requirement, but any permit issued

before the promulgation of regulations establishing those standards must require compliance with the statutory mandate for corrective action.

Corrective action is required whether or not the unit at which a release occurred is still in operation. The owner or operator of a hazardous waste management facility will not be allowed to escape the responsibility to take corrective action by closing a unit at which a release has occurred and limiting the permit application for the facility to other units at the site.

The requirement for corrective action is a continuing one, applying not just to releases that have occurred prior to permit issuance, but also to any releases that occur after permit issuance.

To assure corrective action is taken in response to releases of hazardous wastes or constituents from an inactive unit at a facility seeking or having received a permit, the Administrator will need to revise groundwater monitoring requirements to detect possible releases from all inactive units from which a release could occur at a facility. It will be necessary to determine background groundwater quality at a point unaffected by any waste management activities at the facility.

The requirement for corrective action applies not just to releases of hazardous wastes, but also to releases of hazardous constituents, including hazardous constituents from solid waste and hazardous constituents that are reaction by-products.

The corrective action must be completed as expeditiously as practicable, including, whenever practicable, prior to issuance of the permit. Completion of the corrective action is the best guarantee that human health and the environment will be fully protected. However, if the corrective action cannot be completed prior to issuance of the permit, the Administrator may issue the permit so long as the permit contains schedules of compliance for completion of the corrective action as expeditiously as practicable and the permit applicant has satisfactorily demonstrated both a financial ability and a commitment to complete the corrective action.

LISTING/DELISTING MODIFICATIONS

Section 3001 of the Solid Waste Disposal Act requires the Environmental Protection Agency to list and identify wastes that are to be managed in accordance with the hazardous waste provisions of the Act. Until a waste is so listed or identified, it is not subject to regulation as a hazardous waste under the Act, regardless of how harmful it may actually be. Once a waste has been listed as hazardous, a company may petition the Administrator to exempt from regulation ("delist") a specific waste from a particular facility because that waste is significantly different from the listed or identified waste and is not hazardous.

The listing, identification and regulation of hazardous wastes has not proceeded as rapidly as the law contemplated. At the same time, exemptions from regulation have been granted for particular wastes without assurance that they do not constitute hazards. To clarify the intent of section 3001 in current law, this bill includes provisions to prescribe in greater detail the responsibilities of the

Agency with respect to listing and identifying hazardous wastes and granting exemptions from regulations.

The bill adds a new paragraph (4) to section 3001(b) to correct several deficiencies in the exemption, or delisting, process. In judging whether to delist a waste, the Agency's practice has been to consider only the constituents given as the original justification for the Agency's decision to list a waste. In many, if not all instances, the hazardous constitutents enumerated by EPA as a basis for listing specific wastes do not exhaust the universe of constituents which would justify such a listing. Thus, the petitioning company's waste could be nonhazardous with respect to a constituent used as a basis for listing and be exempted from regulation under recent EPA practices, but still constitute a hazard with respect to constituents not evaluated.

Before making a decision to delist waste from a particular facility, the Administrator is required by the bill to consider criteria, constituents and other factors which, in addition to those used as the original basis for listing, he has reason to believe could cause the waste to be listed as hazardous. If the Administrator denies the petition for exemption on the basis of additional constituents, he is required to amend the basis for the listing of such waste to indicate the additional constituents.

In the recent past the Agency has granted so-called "temporary" delistings without notice or opportunity for public comment and with no deadline for a final decision. The bill requires that every decision on a petition to exempt a waste—whether classified as temporary or final—must be preceded by notice and opportunity for public comment.

Temporary delisting decisions made before enactment of these amendments will cease to be in effect 12 months after they were made or six months after enactment, whichever is later, unless, within that period, a final decision to grant the delisting petition has been made after notice and opportunity for public comment. In making final determinations on these petitions, the Administrator must comply with the provision of the bill that requires him to consider all potentially hazardous constituents.

The Agency currently adheres to no standard as to what constitutes adequate information upon which to base a delisting decision. In particular, the Agency has no standardized procedure to assure that waste samples, which are taken by the petitioner and from which data are derived, are representative of the waste stream for which an exemption is sought. In order to provide a sound information base and one that is consistent for different petitioners, the bill directs the Agency to develop guidelines for the collection and submission of delisting information and requires that the information be certified by a responsible official of the petitioning company.

The bill adds a new paragraph (5) to section 3001(b) which specifies ways by which the Administrator is to improve the process for identifying and listing hazardous wastes.

New paragraph (5)(A) directs the Administrator to identify within six months of enactment those wastes for which a decision whether to list as a hazardous waste will be made within time periods of two and five years. It is expected that the schedule will be

an ambitious one. While the wastes should include those currently being studied by the Agency, this provision is intended to accelerate Agency action and commitment of resources beyond the inadequate level of the past several years. The Agency should also indicate those wastes and waste characteristics which may be hazardous but will not be listed, identified or studied within the next five years. Additionally, the Agency should identify any industries it intends to study and provide a general schedule for completing these studies.

New paragraph (5)(B) directs the Administrator to promulgate, in accordance with section 3001(b)(1), regulations listing as hazardous those wastes containing chlorinated dioxins and those containing dibenzofurans. The Agency proposed listing such wastes in April 1983; final action on this proposal, after review of public comment, is contemplated by this section. The bill requires the Agency to issue a regulation listing these wastes within six months. In light of the potency of these toxicants, the Agency should assure that these wastes are not excluded from regulation under the exemption provisions for small quantity generators or that for recycled hazardous wastes.

The Agency is also encouraged to list, where appropriate, additional wastes containing halogenated dioxins and dibenzofurans, again based on the listing criteria set forth in section 3001(b)(1), and to do so within two years of enactment.

Under the Agency's present regulations a waste must exhibit at least one of several specified characteristics or be listed by name before it may be regulated as a hazardous waste. The characteristics of hazardous wastes currently specified in regulations—ignitability, corrosivity, reactivity, or extraction procedure toxicity—are not comprehensive.

One serious deficiency is the lack of any characteristic which identifies wastes that pose a problem due to toxic organic constituents. Among the toxic compounds that have been found to cause serious damage to human health and the environment are halogenated solvents, pesticides, and vinyl chloride. All of these are organic compounds, and none of the existing characteristics would necessarily identify as hazardous those wastes which contain significant concentrations of these materials.

In order to improve the regulation of hazardous wastes, especially those containing hazardous organic constitutents, the bill adds a new paragraph (5)(C) to section 3001(b) directing the Administrator to promulgate regulations identifying additional characteristics of hazardous waste. There will be some technical problems involved in establishing regulatory thresholds for the broad group of toxic organic substances. However, the deficiencies in current regulatory coverage are severe enough to require action by the Agency. Where technical questions cannot yet be definitively answered, EPA should not delay but should make reasonable assumptions based on the need to protect human health and the environment. The Agency should give priority to expanding the identified hazardous waste characteristics to bring under control those wastes which pose a carcinogenic, teratogenic, mutagenic, reproductive or neurotoxic hazard. New subparagraph (C) also requires the Administrator not later than two years after enactment, either to promulgate

regulations listing each of the wastes identified under paragraph (5)(A) as candidates for listing decisions within two years or to publish a statement as to why a particular waste so identified does not warrant listing as a hazardous waste.

A new paragraph (5)(D) is added to require the Administrator to detemine in which situations use of the extraction procedure toxicity characteristic may be in sufficient to protect human health and the environment. The extraction procedure, which simulates the mobility of certain toxicants in a municipal landfill disposal situation, does not, in many cases in which it is used, represent a likely mismanagement situation, or may represent only one of several reasonable mismanagement scenarios. For example, the test does not address potential air emissions or surface water contamination from run-off. In addition, certain wastes which are inherently of moderate to high alkalinity, or which are placed in highly alkaline sites, may exhibit higher levels of leaching than the extraction procedure indicates.

In some instances involving wastes containing metals, the Agency has relied solely on the extraction procedure to evaluate delisting petitions. Because of the Agency's reliance on the procedure and its clear limitations, the bill directs the Agency, to determine, within six months, the appropriateness of continuing to use its current extraction procedure to evaluate delisting petitions. Short and long-term measures in lieu of or in addition to the existing procedure are needed. Possible corrective measures include revision of or supplements to the existing extraction procedure to represent more adequately the mobility of toxicants under a wider variety of specific conditions. Methods to estimate potential air and surface water contamination resulting from reasonable mismanagement scenarios may also be required. Furthermore, a pre-test may be appropriate to determine the specific leaching procedure to be followed, e.g., acid or alkaline. Finally, the extraction procedure is not very effective for evaluating the mobility of organic toxicants. The Agency should continue its policy of not using this test procedure in evaluating the leaching potential or organic contaminants. Rather, until the Agency develops, after notice and comment, a procedure for measuring the leaching potential of organic toxicants, any decision to delist wastes containing these toxicants should be based on their concentration in the waste.

The bill also requires that, within two years, EPA revise its extraction procedure toxicity characteristic where necessary in order that it reflect more accurately the concentrations of toxic metals that will leach from wastes subject to more aggressive leaching media than those used in the present test.

Pending development of new tests to determine the leaching potential of wastes, the Agency should, for waste identification purposes, continue to employ the extraction procedures currently used.

The bill also adds a new paragraph (6) to section 3001(b) to clarify the Agency's authority and specifically direct it to identify wastes which are hazardous solely because they contain constituents at levels in excess of those which adversely affect human health and the environment. Health data on substances that are carcinogenic, mutagenic, or pose other hazards are constantly updated and improved and will continue to be for the forseeable

future. It is necessary, however, to begin immediately to regulate on the basis of the best available information. As additional data is developed, by EPA and others, the Agency should use this information to revise its regulations, lowering concentrations where necessary and adding new toxicants to the characteristic.

BURNING AND BLENDING OF HAZARDOUS WASTE

This provision corrects a major deficiency in the present subtitle C regulations. The Environmental Protection Agency has adopted regulations that govern the burning of hazardous wastes in incinerators. These regulations, however, exempt facilities that burn hazardous wastes for the primary purpose of recovering usable energy. It has been estimated that some 10 to 20 million tons of the hazardous waste generated annually in this country are being burned as fuel, a practice that is now exempt from subtitle C regulation.

The reported bill amends various parts of subtitle C to direct the Agency to develop and implement a regulatory program that establishes requirements, as may be necessary to protect human health and the environment, for the burning and blending of hazardous wastes for energy recovery. The provisions of this bill reaffirm the Agency's full authority to regulate all hazardous wastes that are blended or burned for energy recovery—including hazardous wastes mixed with used oil—and to regulate the owners and operators of the blending, distributing, and burning facilities. This authority over these facilities should be exercised in an expeditious manner.

Under some circumstances, it may be difficult to determine if a waste-derived fuel should be classified as a used oil fuel or a hazardous waste fuel. for example, used oil contains contaminants, such as lead, that may be present either through use of the oil or through deliberate adulteration. Both hazardous waste fuel and contaminated used oil fuel should be regulated in accordance with these new provisions, as necessary, to protect human health and the environment. The Agency, however, has some discretion as to how to classify these types of fuel mixtures.

Notification

The bill adds a new sentence of section 3010 that requires the filing of a notice by anyone who is producing a hazardous waste-derived fuel, burning a hazardous fuel for energy recovery (other than in a single or two-family residence), or distributing and marketing a fuel produced from a hazardous waste. "Hazardous waste-derived fuel" means fuel derived from hazardous waste, used oil, or from a mixture of either hazardous waste or used oil and other materials. The notification requirement goes into effect twelve months after the date of enactment of this legislation. The notice, to be filed with the Administrator and the State (where there is an authorized State hazardous waste program), must include a statement containing the location and general description of the facility involved, the identified or listed waste involved, a description of the production or energy recovery activity being carried out, and such other information as the Administrator deems necessary. This notification requirement is self-implementing. All persons covered by

the provision are required to file a notification, unless the Administrator by regulation determines that such notification is not necessary to obtain sufficient information with respect to current practices of facilities using hazardous wastes for energy recovery.

The notification requirement applies to hazardous waste-derived fuels, fuels blended with hazardous wastes, and hazardous wastes burned without being blended as fuels. The term "hazardous wastes", as used in this provision, includes not only wastes identified or listed as hazardous under EPA's regulations, but also includes any commercial chemical product (and related materials) listed pursuant to 40 CFR 261.33, which is not used for its originally intended purpose but instead is burned or processed as fuel. (Under current EPA regulations, burning as fuel is not deemed to be a form of discard; hence listed commercial chemical products, unlike spent materials or by-products or sludges, are not deemed to be "wastes" when burned as fuel. They are only "wastes" when actually discarded or intended for discard. This amendment changes that interpretation.)

Hazardous waste or used oil generators, who do not deal directly with the persons who ultimately burn the waste (or used oil) as a fuel or offer the material for sale or use as a fuel and who do not burn these materials themselves, are not covered by this provision. Such generators neither market nor distribute a hazardous waste-derived fuel, and, therefore, they do not know and do not control the ultimate disposition of their waste.

All notifications filed under this provision will go both to EPA and to States with authorized hazardous waste programs rather than to one or the other, as with other notifications.

The notification is a prerequisite for interim status (see section 3005(e)(2)) if the Administrator later determines that these persons should be regulated as hazardous waste management facilities. This should create a strong incentive for persons subject to the notification requirement to comply.

The amendment also provides that activities involving special classes of waste material listed in section 3001(b)(3)(A), which are not now subject to regulation as hazardous wastes, are not subject to the notification requirements. For example, the high volume wastes generated from the combustion of coal or other fossil fuel, typical of the utility industry, are not covered. However, utilities that burn hazardous wastes such as spent solvents, spent acids, or corrosive boiler cleaning wastes in their boilers are subject to the notification requirement, and could be subject to the technical standards as well.

Standards, labeling, recordkeeping, and transportation

The reported bill amends section 3004 by adding three new subsections—(h), (i), and (j), to require standard setting, labeling and recordkeeping requirements, respectively. Section 3003 is also amended, by adding a new subsection requiring transportation standards.

Standards

Under new subsection 3004(h), the Administrator is directed to promulgate regulations as may be necessary to protect human

health and the environment, setting forth standards governing hazardous waste-derived fuel production, burning, distribution and marketing. Such regulations shall be promulgated no later than two years after the date of enactment of this legislation. These regulations shall apply to anyone required to submit a section 3010 notification in accordance with the provisions added by this bill, the owners and operators of any facility that produces, blends or burns hazardous wastes as fuel or anyone who markets or distributes hazardous waste-derived fuels. (Used oil, whether or not a hazardous waste, mixed with other hazardous wastes, can be regulated under these provisions, although the Agency has some discretion as to how to regulate difficult-to-classify contaminated used oil mixtures.) These regulations shall apply whether or not such persons are subsequently relieved by regulation of the requirement to file a section 3010 notification.

Standards established by these regulations may include the requirements listed in paragraphs (1) through (7) of subsection (a) of section 3004, as appropriate. The Agency may make different standards effective at different times within the two-year deadline. The technical standards applicable to facilities, or classes of facilities, burning hazardous wastes as fuel may vary based upon various factors, including but not limited to destruction efficiency of the burning unit and waste content of the fuel to be burned. The Administrator may find it necessary to regulate the burning of certain wastes to protect human health and the environment, while not regulating others. However, the Administrator, in controlling the burning of hazardous wastes and the emissions from facilities that burn such wastes, may not make distinctions solely on the basis of whether the facility is on the site of the generator or is an off-site facility.

The Administrator must make regulatory determinations for each type of combustion unit burning hazardous waste-derived fuel for energy recovery (e.g., boilers, cement kilns and other industrial furnaces) under the same ultimate standard that applies to other hazardous waste management facilities—regulations as may be necessary to protect human health and the environment. Some or all of these units may be therefore regulated under the same substantive requirements that apply to presently regulated treatment facilities. When a combustion unit, such as a cement kiln, operates like an incinerator (especially in terms of the type and volume of hazardous waste being burned), the Agency must apply the same substantive requirements that are applied to regulated incinerators.

The standards to be established under the authority of new subsection 3004(h) do not apply to the special classes of waste material for which subtitle C regulation is suspended under section 3001(b)(3)(A).

New subsection (h) of section 3004 provides for two exceptions to the technical standards, labeling and recordkeeping requirements—one involving petroleum refining wastes containing oil which are converted to petroleum coke and the other involving de minimis quantities of hazardous wastes burned as fuel.

New section 3004(h)(2)(A) exempts petroleum refinery wastes containing oil which are converted into petroleum coke at the same fa-

cility where they are generated, unless the resulting coke product itself would be identifiable as a hazardous waste on the basis of one or more of the characteristics promulgated under section 3001.

This provision exempts petroleum coke, a commercial industrial fuel product, from regulation as a hazardous waste fuel even where hazardous wastes from petroleum refining are used in the production of the coke. It is normal practice in a refinery to recycle oily waste, such as wastewater treatment sludge, by introducing the material into the coking process. In this way, the carbon value of these wastes is utilized, and the waste need not be disposed of. This exemption applies only to oily refining wastes; the exemption does not apply, for example, to a waste generated by the production of petrochemicals such as pesticides or solvents, regardless of whether these wastes might happen to be generated at a facility which is also a petroleum refinery. Also, wastes such as out-dated pesticides or spent solvents generated at a refinery site are not covered by the exemption. These wastes are not unique to refineries and should be regulated if necessary under this Act when used as fuel, regardless of their point of generation.

This provision exempts the actual petroleum coke product from regulation as hazardous waste fuel. Hazardous wastes used in making coke are exempted only when they are actually converted into coke, not when managed in other ways (such as by disposal, or recycling by being placed on the land). In addition, the exemption for hazardous waste to be converted to coke begins with actual introduction to the conversion process. For example, hazardous sludges being stored in a surface impoundment pose the same risk whether they are to be recycled or disposed of, and thus should be regulated accordingly. The exemption applies only to the full coke product, not any waste that may sometime be used in coke production, and only to petroleum coke that is actually used as a final product. Certain commercial specifications are routinely used by producing industries to control the quality of coke products. If a refinery produces coke that does not meet these standards, and therefore must be disposed of on the land or by burning in an incinerator, this disposal remains subject to all subtitle C rules.

Under the second exemption in new subsection 3004(h), the Administrator may exempt from regulation facilities burning de minimis quantities of hazardous wastes as fuel provided the waste is generated and burned on-site (i.e., at the same facility or at a facility in close geographic proximity and under common ownership and control), the waste is burned to recover useful energy, and the waste is burned in a manner sufficient to protect human health and the environment, based on the type of waste being burned and the combustion unit used for burning. This provision applies to hazardous wastes being burned directly, or burned after mixing with other materials (such as used oil). Subject to these generation conditions, if the Administrator decides to exempt from regulation facilities burning de minimis quantities of hazardous wastes, the Agency must establish administratively what de minimis levels are, and the circumstances under which safe burning of de minimis quantities of hazardous wastes can occur.

The de minimis provision, however, is not intended to allow large boilers to burn hazardous wastes in small amounts, relative to total

wastes burned, if the burning of hazardous wastes in such facilities is not protective of human health and the environment.

Labeling

Under new subsection 3004(i), any person who owns or operates a facility that produces a hazardous waste-derived fuel or any person who distributes or markets a fuel produced from a hazardous waste must include on the invoice or bill of sale accompanying such fuels a warning label indicating that the fuel contains hazardous wastes and listing the wastes contained in the fuel. The labeling requirement goes into effect ninety days after the enactment of this legislation and remains in effect until such time as the Administrator promulgates standards under section 3004(h) that specifically supercede this subsection.

The labeling requirement addresses the concern that people are unknowingly burning fuels blended with hazardous wastes in uncontrolled circumstances, resulting in health and environmental risks. Transporters also may be unaware that they are carrying hazardous waste-derived fuel. The interim labeling requirement would have the effect of warning the user (and transporter or other intermediary) that the fuel contains hazardous wastes and identifying those wastes.

The requirement to list the wastes in the fuel can be satisfied by identifying wastes by generic classes (for instance, "chlorinated solvents") rather than by the precise chemical name ("spent trichloroethylene"). This provision need no longer apply, at the Administrator's discretion, once the Agency promulgates substantive standards for hazardous waste fuels.

Although this provision is self-implementing (regulations are not needed to effectuate the requirement), the requirement is tied to the notification provisions of this bill. Thus, if the Agency acts to limit the class of blenders and distributors required to notify, these persons may not have to prepare warning labels if the Agency determines such labels would not be needed to protect human health and the environment and to carry out the intent of this provision in requiring a label.

The provision applies not only in those States where EPA is operating a hazardous waste program, but in States with authorized programs as well. This will assure that users and transporters of hazardous waste-derived fuels in authorized States will not have to wait until their States adopt labeling legislation or regulations—a process that could take several years—before they receive the warnings required by this section.

The labeling requirement provision contains a limited and conditional exemption for certain fuels produced from petroleum refining waste containing oil or from used oil resulting from normal petroleum refining production and transportation practices. Refineries often take oily refining wastes and refining transportation wastes and reintrodue these wastes into the refining process where the oil component is incorporated into a product and contaminants are removed. Refineries should not automatically have to place a warning label on these fuels.

The exemption from the labeling requirement is narrow. The Agency may still explicitly require a warning label for these fuels

as may be necessary to protect human health and the environment. The exemption does not apply to other wastes generated at a refinery such as spent solvents or discarded pesticides. Finally, these wastes must be introduced into the refining process at a point prior to where contaminants are removed. (This standard is drawn from the definition of "re-refined oil" contained in section 1004 (39) of the Act.)

Recordkeeping

This provision directs the Administrator to promulgate regulations, within twelve months after this legislation is enacted, requiring those who produce, burn, distribute or market hazardous waste-derived fuel to keep appropriate records of their activities, as may be necessary to protect human health and the environment. Such records will be needed if the other provision of these amendments are to be enforceable.

Standards for transporters

The bill amends section 3003 by adding a new subsection (c) that requires the Administrator, no later than two years after enactment of this legislation, to promulgate regulations, as may be necessary to protect human health and the environment, to regulate transporters of hazardous waste-derived fuels. In developing these standards, the Agency may require transporters to meet the requirements contained in paragraphs (1) through (4) of subsection (a) of section 3003, but may vary these requirements, or adopt different ones, as may be necessary to protect human health and the environment.

MANDATORY INSPECTIONS

Regulatory inspections of treatment, storage and disposal facilities are a necessary element of an effective hazardous waste control program. Officers, employees and representatives of the States and EPA are authorized by section 3007(a) of the Act to enter and inspect any facility where hazardous waste is being handled. However, too few inspections are being conducted to effectively monitor compliance with the Act and applicable regulations at treatment, storage and disposal facilities, and the Act does not currently require regular inspections. In addition, the nature of the qualifications of inspectors and the scope of the inspections vary widely, depending to an extent on the State where they are conducted.

The reported bill adds a new subsection (b) to section 3007, requiring inspections at least every two years at all treatment, storage, and disposal facilities. The purpose of this amendment is to increase the numbers of inspections and improve the quality of the inspections. A mandatory program assuring frequent, periodic and uniformly high quality inspection is necessary to assure the public that hazardous waste facilities are operating safely and that health and the environment are being protected. The amendment requires that every facility that treats, stores or disposes of hazardous waste (whether or not a permit has already been issued by EPA or an authorized State) be thoroughly inspected on a regular basis and no less frequently than once every two years. The Administrator must

promulgate regulations governing the frequency and manner of inspections and may distinguish among classes and categories of facilities, commensurate with the risk posed by each class or category.

This provision authorizes the Administrator to require that all inspections be conducted by an inspector certified as competent and qualified by the Administrator. Unless the Administrator determines that the problems of unqualified inspectors and inspections of uneven quality being conducted throughout the United States can be remedied more effectively by other means at his disposal he should establish such a certification program.

EPA's current goal of inspecting land disposal facilities and incinerators once a year, storage facilities once every four years, and remaining generators and transporters once every ten years is inadequate. The proper minimum frequency is to be decided after a rulemaking process which should begin as soon as possible. If additional resources are required to perform the requisite number of inspections, EPA should inform the Committee about such resource needs. EPA is not to assume that existing resources cannot be increased for the purposes of conducting this rulemaking, but rather should determine what is necessary to protect human health and the environment.

The Administrator must also prepare a report on the potential for using non-government inspectors to supplement the inspections being conducted by officers, employees or representatives of EPA and authorized States, and submit this report to Congress within 6 months after enactment of this amendment. The report is to be prepared in cooperation with States, insurance companies offering environmental impairment liability insurance, independent companies providing inspection services, and other groups that the Administrator determines are appropriate.

The report is to examine the validity of an idea presented during hearings: utilizing non-government inspectors to supplement the enforcement work of EPA and the States. EPA should examine the pros and cons of this idea, including, but not limited to, the role of such inspectors in enforcement procedures, whether the government or the owner/operator should choose who will inspect a particular facility, whether the use of non-governmental inspectors will present potential conflict-of-interest problems, and whether other mechanisms can better provide additional inspection capability, such as a fee system to fund PA and State enforcement activities. Other areas of interest involve questions of confidentiality and the latitude which non-governmental inspectors would have to withhold the results of their inspections from the public and the Agency.

The report is to contain such background information as well as recommendations on provisions and requirements for a program of private inspections, including safeguards necessary to protect against conflicts of interest or the appearance of such conflicts and appropriate provisions for the establishment of an inspector certification program such as necessary training and examinations. The report should also discuss the establishment of a schedule of fees which would be charged for examiniation and certification of inspectors that would make the program self sufficient.

The study the Administrator performs should be focused on the issue at hand: how to procure uniform, high quality inspections of treatment, storage and disposal facilities at little or no cost to State and Federal governments. The product of the Administrator's study should be a complete report, evaluating alternative solutions to the problem and containing recommendations as to the most appropriate solution. It should contain detailed recommendations for legislation or regulations necessary to implement the recommended alternative.

FEDERAL FACILITIES

This section of the bill contains provisions dealing with Federal facilities and Federal inspection of State and local facilities. Existing information on facilities owned or operated by agencies or departments of the Federal government and by State and local governments indicates that there are large numbers of such facilities at which hazardous waste are treated, stored or disposed.

The bill requires the Administrator of the Environmental Protection Agency to inspect every facility at which hazardous wastes are treated, stored or disposed and which are owned or operated by an agency or department of the Federal government. The Administrator is required to conduct this inspection at least once every two years. While State officials in States with authorized hazardous waste programs are authorized by the bill to conduct such inspections, the Administrator's duty to conduct the inspection is mandatory. The Administrator may not delegate his responsibility outside the Environmental Protection Agency. The Administrator must inspect the Federal facilities and determine their compliance with the requirements of this subtitle and regulations promulgated thereunder.

The bill also requires the Administrator to inspect every treatment, storage and disposal facility which is operated by a State or local government and which is required by section 3005 of the Act to have a permit.

It is extremely important that the Administrator, as the Federal official designated to implement the hazardous waste laws of this Nation, assure that the facilities owned and operated by agencies and departments of the Federal government are in compliance with those laws. Section 6001 of the Solid Waste Disposal Act specifially provides that all branches of the Federal government owning or operating a solid waste management facility are subject to and must comply with Federal, State, and local hazardous waste laws including permitting and inspection requirements. This new inspection requirement will assure that the Administrator compiles compliance data on all Federal facilities, thereby enabling the Agency, States and private citizens to assess the performance of the Federal government in meeting its obligation under the hazardous waste laws.

It is also important that there be a thorough and objective evaluation of conditions at State and locally operated hazardous waste sites. The bill requires EPA, as the Federal agency with responsibility for overseeing hazardous waste disposal, to conduct such an

inspection and evaluation, and to make the results of its inspections available to the public.

This section of the bill also amends the Solid Waste Disposal Act by adding a new section 3015. This new section provides that all agencies of the Federal government undertake a continuing program to compile, publish and submit to the Administrator of the Environmental Protection Agency, and to authorized States, an inventory describing all sites owned or operated by such agencies where hazardous wastes have at any time been treated, stored or disposed. The inventory is to include sites where hazardous wastes were treated, stored or disposed at time other than when said agencies owned or operated the sites. It would be helpful if the inventory could include information on sites previously but no longer owned or operated by a Federal agency, such as reported under section 103(c) of CERCLA.

Some of the information required by the inventory may currently be available to the Administrator pursuant to the notification requirements in section 3010 of the Act or section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). While these notification requirements applied to active (section 3010) as well as inactive (section 103(c)) sites, these notifications have been considered to be one-time requirements. The section 3015 inventory establishes an ongoing requirement to compile and continuously update the inventory.

Since the time the original notifications under section 103(c) were prepared, several agencies have established programs to determine further the existence and nature of hazardous waste sites on Federal lands. The Environmental Protection Agency also has begun an initiative to inspect facilities to evaluate identified sites and determine if additional unreported sites may exist. The section 3015 inventory will provide a statutory framework for these efforts assuring that as more detailed investigations reveal additional sites or information on previously identified sites, this information is routinely added to agency inventories which are forwarded to the Administrator.

The duty to compile and submit the inventory to the Administrator is a mandatory, nondiscretionary duty. Should an agency fail to carry out the inventory requirements, section 3015 requires the Administrator to compile the inventory. The Administrator's duty is also nondiscretionary. Either a noncomplying agency of the Administrator, if he fails to act, are subject to the citizen suit and penalty provisions of section 7002. To assure that there is no confusion as to this, the amendments to section 7002 continue to use the current statutory language to specifically authorize a suite against "any person, including the United States . . .".

These new inspection and inventory requirements also will provide documentation as to the condition or existence of hazardous waste sites on Federal lands. Such documentation, which there is reason to believe has not been adequately developed in the past, will be extremely useful in determining the need for response action under CERCLA.

The Comprehensive Emergency Response, Compensation and Liability Act established a program for responding to releases of hazardous substances on Federal or non-Federal lands. Section 107(g)

of CERCLA makes clear that the provisions of the law apply to all branches of the Federal government. However, the President, in Executive Order 12316, delegatd to various Federal agencies the authority to assess whether a release has occurred on their lands and what actions, if any, are necessary to respond to such releases. This delegation of authority has resulted in the disturbing situation in which the potentially liable agency is also the agency juding the existence and extent of its liability. The inspection and inventory requirements of this bill will serve the function of "shining a light" on these sites and providing the Administrator and the public with essential information to assess the need for CERCLA response at Federal facilities and the extent of Federal agency liability at such sites.

Except where the government is expressly singled out for preferential treatment, it is to abide by the requirements of this law as would any private citizen.

FEDERAL ENFORCEMENT

The reported bill amends section 3008 in several ways to improve hazardous waste enforcement. The amendment to section 3008(d)(1) clarifies the criminal liability of persons, including generators of hazardous waste, who knowingly cause hazardous waste to be transported to an unpermitted facility. Because the generator is in the best position to know the nature of his waste material, the regulatory scheme established by subtitle C places a duty on the generator in the first instance to make appropriate arrangements to transport and dispose of his waste properly. The Federal government's ability to obtain criminal penalties against generators and other persons who knowingly cause the transportation of hazardous waste to an unpermitted facility is essential to the regulatory scheme.

The amendments to section 3008(d)(2) add violations of interim status standards to those violations of subtitle C for which criminal penalties are available. A large number of hazardous waste management facilities currently are operating under interim status standards, rather than final permits. Knowing violations of interim status standards can present significant human health and environmental problems. In the most serious situations, the government's ability to obtain criminal penalties for such violations will be a necessary enforcement tool.

Although States are not required to have analogues to the Federal interim status standards (i.e., they may require that all facilities obtain permits before construction or operation), where States do have such standards, violation of those standards will also be subject to this section.

Section 3008(d)(3) provides criminal penalties for the submittal of false information in documents required to be filed under the Act. However, the statute presently does not specifically address material omissions or the failure to file required reports. These actions may have significant impact on the regulatory process. The conduct can be as serious in nature as falsification of information submitted. These amendments are proposed to clarify that criminal penalties are provided for this conduct.

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Only "material" omissions, i.e., omissions which will have a tendency to influence Agency action, are included, assuring against the application of this section to incidental or insignificant violations. Similarly, the amendments provide criminal penalties only for a knowing failure to file required material. Failure to file or incomplete filing due to accident or mistake is not covered by this provision.

The amendments also clarify the fact that section 3008(d)(4) applies to records or other documents required by State regulation in a State with an authorized subtitle C program. Finally, the amendments affirm that this provision apply to exporters of hazardous waste, as well as generators, storers, treaters, transporters, disposers and other handlers of hazardous waste.

A new paragraph (5) is added to section 3008(d) by these amendments to provide criminal penalties where hazardous waste is knowingly transported or caused to be transported without a manifest. Without this provision, criminal liability would not attach to conduct resulting in the unmanifested transportation of hazardous waste unless the waste is subsequently delivered to an unpermitted facility, a violation of section 3008(d)(1).

These amendments are intended to simplify the current language of section 3008(e) and to extend its coverage to all criminal violations specified in section 3008(d).

Section 3008(e)(1)(B)(ii) is deleted from the "Knowing Endangerment" provision in the statute because that paragraph is redundant once violations of interim status standards are included in subsection (d)(2). Rather than reiterate those actions which constitute the predicate for the crime of knowing endangerment, section 3008(e) is amended to reference paragraphs (d)(1)–(5). The further effect of this change is that the making of false material statements or representations; the destruction, alteration or concealment of, or failure to file, records, applications, manifests, reports and other documents; and the transportation of hazardous waste without a manifest, have been added to those actions subject to the knowing endangerment provisions of section 3008(e).

In addition, this amendment eliminates the language of subsection (e)(2) (A) and (B) from section 3008. In the past, there has been confusion over the meaning of and the distinction between (e)(2)(A and (e)(2)(B). This element of proof renders section 3008(e) unduly restrictive and may well have contributed to the fact that since its enactment in 1980, there has not been a single indictment under this provision. With the deletion of this language the provision retains numerous safeguards and there still remains a sufficiently strenuous burden to prove knowing endangerment to prevent unwarranted prosecutions.

Finally, the increased maximum prison sentences for violations of section 3008(e) and section 3008(d) (1) and (2) reflect the Congress' explicit intention that criminal violations of this Act should not be treated lightly. As the implementation of other provisions of this bill restrict land disposal of hazardous wastes and require safer methods of handling and treatment, there will be a significantly greater incentive to dispose of toxic waste illegally. These improved criminal provisions and enhanced penalties are intended to provide EPA and the Department of Justice with the necessary

enforcement tools to combat increased criminal activity in this area.

EXPORT OF HAZARDOUS WASTES

This section of the reported bill adds a new section 3016 to subtitle C, to address problems which have arisen and are expected to arise involving the export of hazardous wastes generated in the United States.

Under current EPA export regulations, persons who wish to export hazardous wastes are required each year to notify EPA four weeks prior to the initial shipment of a given hazardous waste. This notification includes EPA and Department of Transportation classification numbers as well as the names and addresses of the generator and the consignee. The notification does not include any reference to the amounts to be exported; the frequency of exports; the points at which the waste will enter the receiving country; the methods of storage, treatment or disposal in the receiving country; or the ultimate destination of the waste.

The existing notification system is inadequate to address the present and potential environmental, health, and foreign policy problems which occur when wastes are exported to nations which do not wish to receive them, or lack sufficient information to manage them properly. Accordingly, the Administrator is directed to exercise increased authority over hazardous waste exports. In the absence of a bilateral agreement between the U.S. and the government of the receiving country setting forth specific notice, export, and enforcement procedures for the transportation, treatment, storage and disposal of wastes, no person shall export hazardous wastes unless (1) such person has notified the Administrator of the plan to export; (2) the government of the receiving country has agreed, in writing, to this plan; (3) a copy of the receiving country's written consent is attached to the manifest accompanying each waste shipment; and (4) the shipment conforms with the terms of such receiving country's consent.

The notification provided to EPA by the person who intends to export a hazardous waste, and forwarded by the government of the U.S. to the government of the receiving country, will enable that government to make an informed decision as to whether it will accept the waste and, if so, how it will deal with that waste.

The notification shall include (1) the name and address of the exporter; (2) the types and estimated quantities of hazardous waste to be exported; (3) the estimated frequency or rate at which such waste is to be exported and the period of time over which such waste is to be exported; (4) the ports of entry; (5) a description of the way in which the waste will be transported to and treated in the receiving country; and (6) the name and address of the ultimate treatment, storage or disposal facility.

A receiving country's written consent must be obtained prior to shipment and attached to the manifest accompanying each waste shipment. This will provide the foreign country with the option of rejecting, accepting or accepting with conditions the waste, and will facilitate enforcement of that decision. Without the receiving country's written consent, the shipment cannot take place.

In order for the notice to be managed properly and effectively, the Administrator, working with the Secretary of State, should establish a procedure for forwarding information to the foreign country regarding the shipment and pertinent U.S. law. Also, the procedure should include a request for the receiving country to provide the Secretary with a written copy of the consent or rejection.

Where there exists an international agreement between the United States and the government of each receiving country that establishes notice, export, and enforcement procedures for the transportation, treatment, storage and disposal of hazardous wastes, such an agreement shall govern direct shipments of hazardous waste from the United States to the receiving country. Such agreement may or may not require the receiving country's prior written consent on a shipment-by-shipment basis.

Effective monitoring and enforcement programs must be part of any agreement between the United States and a receiving country. Such a bilateral agreement should describe joint efforts to monitor and spotcheck shipments of hazardous waste to assure that they conform with the terms of the agreement. Shipments must conform with the terms of the agreement to satisfy the requirements of this section. A bilateral agreement should also describe responsibilities for enforcement and prosecution of the terms of the agreement.

Any person who exports any hazardous waste after enactment of this section must report on an annual basis on all exports of such waste to any country. These reports will be useful in more accurately assessing the volume, frequency and destination of hazardous waste exports from the United States.

Although the Agency has up to two years to fully implement the new hazardous waste export policy, such implementation can probably be accomplished in a shorter period of time and the Administrator should promptly begin the implementation task. Until this section is fully implemented, any person who intends to export a hazardous waste should follow existing hazardous waste export notification procedures as required under the present subtitle C regulations. However, twelve months from the date of enactment of this bill any person who wishes to export will be required to comply with the provisions of this section.

As in the other provisions of subtitle C, public oversight is necessary to assure proper implementation. Accordingly, the public should be given full access to information and documents produced under this section. Citizens, upon request, should be given access to all notices filed under subsection (c), comments on such notices returned by the receiving country, a copy of the receiving country's final consent returned under subsection (e), and all annual reports filed under subsection (g).

The requirements of this section should be vigorously enforced using all the tools of section 3008. To accomplish this, the Agency should work with the U.S. Customs Service to establish an effective program to monitor and spotcheck international shipments of hazardous waste to assure compliance with the requirements of the section. Violations should then be vigorously pursued.

SUBTITLE D IMPROVEMENTS

The reported bill adds a new paragraph to section 4004(a), a part of subtitle D of the Solid Waste Disposal Act. New section 4004(a)(2) requires the Administrator within twenty-four months after enactment of these amendments to promulgate revisions of the criteria for distinguishing sanitary landfills and open dumps under sections 1008(a)(3) and 4004(a)(1). These revisions are to reflect the need to protect human health and the environment, and improvements in the state of control and measurement technology.

Substantial quantities of material of a hazardous nature finds its way into subtitle D disposal facilities (i.e., all those not required to have a permit under subtitle C). This includes hazardous wastes not required to go to a subtitle C permitted facility because they come from "small quantity generators." While the exact quantity of such wastes is not yet known, it clearly totals millions of tons each year, and can exceed tens of thousands of gallons per year at a single facility. Also, the household waste exclusion allows hazardous materials to enter subtitle D facilities. Because of the currently inadequate procedures for identifying, listing, and delisting hazardous wastes, many troublesome materials currently unregulated under subtitle C will go to subtitle D facilities. These include infectious wastes and wastes delisted through marginal neutralization of their corrosivity characteristic. Illegal dumping of hazardous wastes is regulated under subtitle C, but the likelihood of such dumping at subtitle D facilities must be considered.

Many sites addressed by the cleanup program under the Comprehensive Environmental Response, Compensation and Liability Act (Superfund) were originally municipal landfills. To avoid creating another round of Superfund candidates through our current subtitle D disposal practices, the subtitle D facility criteria must be revised. New section 4004(a)(2) requires such revisions to take into account the potential receipt by subtitle D facilities of hazardous waste in household waste and from small quantity generators and the possibility of illegal dumping. As directed by section 1008(a), such revised criteria should include information for deciding the adequate location, design, and construction of subtitle D facilities, including the consideration of regional, geographic demographic, and climatic factors.

A principal purpose of these revised criteria is the protection of ground and surface water and drinking water supplies. Appropriate closure requirements should be part of the revised criteria. The Agency is expected to examine improvements in waste disposal control and measurement technology. EPA must also consider the appropriate standards to protect human health and the environment, taking into account the size of the facility, its location relative to populated areas and the degree of industrialization, the proximity of ground and surface water, the disposal method, and the amounts and characteristics of the waste received.

The Agency is granted some discretion in determining the appropriate design and operating standards for various subtitle D facilities. For example, smaller and more remote facilities, especially those not close to drinking water sources, seem less likely to cause public health problems than large facilities or those near populated

areas or receiving wastes from industrialized areas. The multiple liner-leachate collection system requirements of new section 3004(f) applicable to subtitle C facilities are not to be automatically incorporated in revised criteria for landfills or surface impoundments which are subtitle D facilities.

The impetus for requiring these revisions is primarily the concern for potential disposal of hazardous materials with nonhazardous wastes. Therefore, in revising the criteria the Agency should focus initially on municipal landfills and subtitle D surface impoundments where this is most likely to occur. For facilities potentially receiving hazardous waste in household waste or from small quantity generators the revised criteria at a minimum must require groundwater monitoring, and provide for corrective action where necessary to protect ground or surface water or otherwise prevent release of hazardous materials into the environment. Groundwater monitoring requirements can contain the flexibility currently provided in the subtitle C regulations. This requirement does not apply to facilities which only receive wastes the regulation of which is suspended under section 3001(b) (2) or (3).

To make it clear that the prohibition of facilities not in compliance with the subtitle D criteria is a direct Federal requirement, not dependent on the approval of a State plan containing that requirement, section 4004(c) is amended by striking any reference to State plan approval.

As originally conceived in the 1976 amendments to the Solid Waste Disposal Act, subtitle D was intended to provide a comprehensive program for the management and disposal of solid waste. The development and implementation of State plans are to address both hazardous and nonhazardous wastes. The ban on open dumping of section 4005 applies to solid waste and hazardous waste. Subtitle D, however, provides the Act's only regulatory framework for the environmentally sound disposal of solid waste at landfills and impoundments not subject to subtitle C permits. The purpose of these amendments is to strengthen State and Federal oversight of subtitle D facilities, particularly those which might receive hazardous wastes from small quantity generators or in household wastes. These subtitle D improvements require action at both the Federal and the State level.

The reported bill adds a new subsection to section 4005 of the Act, requiring each State to adopt an enforceable system of prior approval and conditions (e.g., a facility permit program) to assure compliance with the revised criteria by each solid waste management facility which may receive hazardous waste in household solid waste or from small quantity generators. Each State must begin to enforce such a system no later than forty-two months after enactment of these amendments. Most States already have in place permit systems for solid waste disposal facilities. Since these systems are likely to require modifications to incorporate the revised criteria, the bill provides time after the deadline for revising the criteria for States to make such modifications.

The Agency is expected to work with the individual States to assist them in adopting appropriate and enforceable permit or other systems for assuring compliance with the revised criteria. States should make use of the open dump inventory, and permits

issued under such systems should reflect or constitute the compliance schedule required by section 4005(a). The Agency is expected to make funds available to the States, through performance-based grants under section 4008(a)(1) or an augmented section 3011 program, to assist State progress in revising their regulations and solid waste management plans and their permit and enforcement programs. Such funding should be stable over a period of years, for the States to reliably make use of it.

Experience with the original subtitle D program indicates that some States may be unable or unwilling to adopt an enforceable program to assure compliance with the criteria at all facilities. To provide for this contingency, under new section 4005(c) the Environmental Protection Agency is authorized to enforce the prohibition of section 4005(a) with respect to facilities receiving hazardous wastes in household or from small quantity generators, in any State which fails to adopt and enforce the required compliance assurance program within forty-two months after enactment of these amendments. The Agency will determine a State's compliance with the requirements of section 4005(c) through the review and approval of State solid waste management plans under section 4003.

The Agency may use the enforcement authorities of sections 3007 and 3008 to enforce the prohbition on open dumping and the revised criteria. Under section 3007 EPA employees or representatives can enter, inspect, and obtain samples at any facility to the same extent that the authority exists for hazardous waste facilities regulated under subtitle C. This authority will allow EPA to evaluate against the revised Federal criteria any disposal facility which may receive hazardous waste in household waste or from small quantity generators. Under section 3008 the Administrator has the authority to issue compliance orders and to assess civil and criminal penalties for violations of the criteria. Citizens may continue to use the enforcement authority of section 7002 to enforce the prohibition on open dumping and the revised criteria.

BIENNIAL REPORT

This provision amends section 3004(a) to require the Agency to periodically prepare and submit to Congress and the President a report characterizing hazardous waste generation, storage, treatment, and disposal nationwide. The report must be submitted no less frequently than every two years and describe the quantities of specific types of wastes regulated under subtitle C that are being generated as well as the disposition of those wastes and the number of firms engaged in such hazardous waste generation, storage, treatment, and disposal activities. The first such report shall be submitted to Congress no later than March 31, 1985, and shall cover the 1983 reporting year.

This information is necessary to identify trends in hazardous waste management, establish resource needs and priorities, and to assist in evaluating the impact of the hazardous waste regulations.

The report shall summarize the information obtained by the Agency under reporting requirements promulgated pursuant to sections 3002(a)(6) and 3004(a) (1) and (2) which require hazardous waste handlers to submit biennial reports to EPA for all odd-num-

bered calendar years. The Agency will not obtain these reports directly from hazardous waste handlers located in States that have received interim or final authorization. States with interim or final authorization are therefore directed to assist the Administrator in preparing such report for Congress in a form and manner to be prescribed by the Administrator. The Administrator may request copies of those reports received by the States or may specify a format for submission of aggregated data from the individual States. The Administrator may also rely on his existing authority under section 3007 of the Act to obtain the necessary information.

AWARD OF FEES

This section provides for the awarding of costs of litigation in citizen suits under section 7002(e) of the Act to prevailing or substantially prevailing parties.

The purpose of this section is to clarify the circumstances under which costs may be awarded to parties to citizen suits. In *Sierra Club* v. *Gorsuch,* 672 F. 2d 33 (D.C. Cir. 1982), the Court of Appeals held that it was "appropriate" under the Clean Air Act to award attorney's fees to the petitioner even though the government prevailed on all issues. This decision was later reversed by the Supreme Court in *Ruckelshaus* v. *Sierra Club,* 103 S. Ct. 3274 (1983).

It is not reasonable or appropriate to compel either the government or a private party to pay the costs of an opposing party to a lawsuit when the opposing party has not prevailed on any of the issues. Accordingly, this amendment is intended to endorse the Supreme Court's decision in *Ruckelshaus* v. *Sierra Club,* confirm its applicability to the Solid Waste Disposal Act, and provide further guidance to the courts in determining the circumstances under which it is appropriate to consider awarding costs of litigation.

This amendment is not intended to preclude an award of costs to a partially prevailing party with respect to the issues on which that party has prevailed, if such an award is deemed appropriate by the court. Conversely, although the amendment does authorize an award of costs to a party who intervenes in a case and is technically on the prevailing side, such an award would not be appropriate if the intervenor failed to make a substantial contribution to the successful outcome of the case. A party may "prevail" by achieving a successful settlement.

JUDICIAL REVIEW

This section of the reported bill revises section 7006, the provision of the Solid Waste Disposal Act governing judicial review of certain actions of the Administrator.

Section 7006(a) of the Act is amended to provide that a petition for review of the promulgation of final regulations under the Solid Waste Disposal Act or the denial of a petition for the promulgation, amendment, or repeal of a regulation under the Act may be filed either in the U.S. Court of Appeals for the District of Columbia or in any U.S. Court of Appeals for a circuit in which the petitioner resides or transacts business which is directly affected by such action. The petition must be filed within 120 days from the date of the action complained of unless it is based solely on

grounds arising after 120 days. An Agency action which could have been reviewed under this subsection shall not be subject to judicial review in enforcement proceedings.

The principal purpose of this amendment is to allow the filing of petitions for review of nationally applicable actions of the Administrator under the Solid Waste Disposal Act in U.S. Courts of Appeals other than the U.S. Court of Appeals for the District of Columbia, which currently has exclusive jurisdiction over such petitions.

The justification for the current centralized judicial review of environmental laws is that it eliminates the possibility of conflicting interpretations of the law in different circuits and allows a single court to develop expertise in this area of the law. However, these advantages are insufficient to offset the disadvantages of centralized judicial review, which include inconvenience to litigants who do not reside in Washington, D.C., and a concentration of power in a single intermediate appellate tribunal, which may in turn generate narrow political pressures on the appointment of judges. Centralizing review in a single court also deprives the law of diverse views on complex legal issues, and as a result may make the task of the Supreme Court more difficult. Although other circuit courts of appeals may not possess the technical expertise of the D.C. Circuit, the reponsibility of the courts is to review actions of EPA for conformity with the law, not to undertake technical review of the details of regulations, and there is no reason to believe that other courts of appeals lack competence to review regulations and other actions for conformity with the Solid Waste Disposal Act and other applicable laws.

The purpose of changing the period within which a petition must be filed form 90 to 120 days is to assure that persons who will be significantly affected by an action of the Administrator have an ample opportunity to assess the consequences of such action and, if necessary, file a petition for review prior to the expiration of the time period. This issue was previously reviewed by the Committee in a similar context (Senate Report No. 97-666 at pp. 94-5) and it was determined that 120 days is a reasonable period within which to require the filing of a petition for review.

Section 7006(b) is amended to provide that a petition for review of the issuance, denial, modification, or revocation of a permit under section 3005, or the grant, denial, or withdrawal of autorization or interim authorization under 3006, may be filed by any interested person in the U.S. Court of Appeals for a circuit in which the petitioner resides or transacts business which is directly affected by such action. As under section 7006(a), the period within which a petition must be filed is changed from 90 to 120 days.

Currently, section 7006(b) provides for venue in the Circuit Court of Appeals of the United States for the Federal judicial district in which the petitioner "resides or transacts such business", a phrase which is drawn from section 509(b)(1) of the Federal Water Pollution Control Act. This phrase is inherently ambiguous because the word "such" has no antecedent. The legislative history of this phrase is also ambiguous and is not consistent with the plausible interpretation, urged by the Department of Justice, that the words "such business" refer to business which is directly affected by the

action which is the subject of the application for review. The two courts of appeals which have sought to construe this phrase, the Fifth Circuit in *Tenneco Oil Co.* v. *EPA,* 592 F. 2d 897 (1979), and the Eighth Circuit in *Peabody Coal Co.* v. *EPA,* 522 F. 2d 1152 (1975), ultimately avoided ruling on its meaning and, therefore, proper venue for section 509(b) cases and section 7006(b) cases remains unsettled. In order to eliminate, or at least reduce, the potential for threshold litigation over proper venue, the amendment changes the venue provisions so that the language conforms to the reading of current law which has been suggested by the Department of Justice. The filing of an application for review shall be proper in the circuit in which the applicant resides, i.e., has his principal place of business, or where he transacts business which is directly affected by the action of which he complains. For example, in a case in which the action complained of is a denial of a permit for a proposed facility, the direct effect of the action would be felt only at the location of the proposed facility, even though indirect effects of the action might be felt at other facilities of the company. In a case involving review of a regulatory action under section 7006(a) the direct effect of the action would be felt at the location of the facility or activity subject to the requirements of the regulation.

The new subsection (c) of section 7006 simply relocates the current provision governing the adducing of additional evidence in the course of judicial review of an agency action, previously section 7006(a)(2), and does not change its meaning or applicability.

New subsection (d) of section 7006 establishes a random selection procedure, to be administered by the Administrative Office of the United States Courts, to determine the court of appeals in which an agency action is to be reviewed when petitions for review have been filed in two or more courts of appeals within a 30 day period. Following the selection of a court of appeals, other courts in which petitions have been filed are directed to promptly transfer such petitions to the court in which the agency record has been filed. Notwithstanding the outcome of the random selection procedure, any court in which a petition has been filed would retain the power to transfer the petition to any other court of appeals for the convenience of the parties or otherwise in the interest of justice.

The purpose of the random selection procedure is to eliminate the "race to the court house" phenomenon and provide for an orderly means of consolidating petitions for review of the same agency action. This process is in no way intended to preclude or discourage any court of appeals from exercising its inherent power to transfer a petition for review to any other court of appeals for the convenience of the parties or otherwise in the interest of justice.

New subsection (d)(2) provides new authority for any court of appeals to grant a temporary stay of the effective date of a final agency action pending selection of the court of appeals in which the action will be reviewed. However, stays should not be granted unless the same requirements that ordinarily apply to a petition for a stay of an agency action are fully satisfied.

New subsection (e) would authorize the awarding of costs of litigation under section 7006 on the same basis and subject to the

same limitations which apply in the case of citizen suits (section 7002(e) as amended by this bill).

CITIZEN SUITS

The reported bill amends section 7002 to authorize the Federal courts, in actions initiated by citizens under section 7002, to apply civil penalties under section 3008 and to authorize citizens to seek relief, including abatement, where the past or present handling, storage, treatment, transportation or disposal of any solid or hazardous waste may present an imminent and substantial endangerment to health or the environment.

The conditions placed on such suits are intended to assure that they will complement, and not interfere with, Federal regulatory and enforcement programs. Citizen suits under these amendments may only be initiated one hundred twenty days after the citizen has notified the Administrator, the State in which the alleged endangerment may occur, and the persons alleged to have contributed or to be contributing to the activities which may present the endangerment, that there may be an endangerment. As with other citizen suits under the Act, suits respecting a violation of subtitle C may be brought immediately after such notification. If the United States has commenced and is diligently prosecuting an action under section 7003, or has settled an action to restrain or abate acts or conditions which may have contributed or are contributing to the activities which may present the alleged endangerment, an action under the new provision cannot be filed. If a State has commenced and is diligently prosecuting an action under the new provision, a citizen cannot file such an action. It is recognized that one hundred twenty days is not sufficient time for the Agency to conduct all studies necessary to initiate an enforcement action. Nevertheless, based on current experience, one hundred twenty days should provide enough time for the Agency to conduct an investigation satisfactory to the private parties, so that EPA and the private parties should be able to work out a mutually acceptable way to proceed.

A determination as to whether the Administrator or a State "has commenced and is diligently prosecuting" an action is, by necessity, a case-by-case determination. With respect to the new cause of action for citizens, "commencement" of an action, as used in these amendments, means having actually filed suit or having issued an administrative order. An action has not been "commenced" in a case that is merely under investigation or a case where only notice or warning letters have been sent. The scope of the relief being sought by the Administrator and the opportunity for citizens to intervene are factors to be considered when determining if a case is being "diligently prosecuted." A suit filed in court to obtain partial abatement of a situation presenting an endangerment may be deemed to be a bar to an independent citizens' suit under these amendments. An example is a suit to obtain surface cleanup of a site without addressing cleanup of contaminated groundwater. By exercising the statutory right to intervene, the citizen could adequately protect his interest and seek a judicial order for complete abatement. An administrative order encompassing only a portion

of a site, on the other hand, may be deemed to not be a bar to an independent citizens' suit. An example of an administrative order encompassing only a portion of a site is an order addressing the cleanup of surface contamination without addressing the cleanup of surface contamination. Even with the new requirements for public participation in settlements, participation short of intervention does not provide citizens with the same opportunities to protect their interests or to seek a judicial order for complete abatement. A decision to bar such an opportunity should not be taken lightly.

An additional limitation is contained in the provision that no person, other than a State or local government, may bring such an action with respect to the siting of a hazardous waste treatment, storage or disposal facility. Other legal authority is appropriate for addressing questions arising from the permitting process. This section is not intended to be used to reopen or frustrate the permit process. Finally, this amendment does not affect recognized requirements regarding legal standing.

The amendments are not intended to limit in any way the clear right of intervention provided to the Administrator. For example, if the Administrator believes a citizen suit under the provision is not being prosecuted in the public interest, he may exercise the right to intervene in such action and seek from the court restrictions or conditions upon the citizen suit, in order to assure that the means of prosecution and the relief sought are in the public interest. EPA and the Department of Justice are responsible for taking necessary steps to assure orderly and consistent development of case law and legal interpretations, and technical consistency for hazardous waste enforcement. In view of the Agency's expertise in this area, courts will accord some deference to the Agency's technical findings concerning the nature and extent of endangerment. The Administrator and the Department of Justice are encouraged to file amicus curiae briefs with the court, where appropriate.

These amendments provide any person with a statutory right to intervene as a party to section 7003 suits filed by the Administrator, or new section 7002(a)(1)(B) suits filed by a State, "unless the Administrator or the State shows that the applicant's interest is adequately represented by existing parties." The rules on intervention are intended to assure that persons living in close proximity to a site (persons potentially at risk) which is the subject of a government-initiated imminent hazard action will be able to intervene as a matter of right unless the Administrator or the State can demonstrate that they are adequately representing those persons' interests. The purpose of the amendments is to make it easier for individuals who may be assuming an imminent and substantial risk as a result of the defendant's activities to participate in these suits, particularly in fashioning the appropriate remedy for eliminating the risk. By requiring the government to demonstrate that the applicant's interests are already represented, this amendment reverses the normal presumption of Rule 24 of the Federal Rules of Civil Procedure.

These amendments are intended to allow citizens exactly the same broad substantive and procedural claim for relief which is already available to the United State under section 7003. *United*

States v. *Diamond Shamrock Corporation*, Civ. No. C80-1857 (N.D. Ohio, E.D. May 29, 1981). Any differences in language between these amendments and section 7003 are not intended to reflect a difference in such claims, but to merely clarify that citizens will have the same claim presently available to the United States. Nor do these amendments limit existing rights. Providing citizens with the same claim presently available to the United States is not meant to imply that citizens be accorded the same deference on technical issues that the courts might accord the EPA or the Department of Justice.

Some liable parties have erroneously asserted that the United States must exhaust all viable alternatives to injunctive relief before it may seek such relief under section 7003. Just as the United States need not utilize resources available to it under section 104 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Public Law 96-510) or prove that such resources are unavailable before it may seek injunctive remedial relief under section 7003 or similar authorities, citizens need not exhaust or rely upon other resources or remedies, before seeking relief under these amendments. As with section 7003, these amendments are to be an alternative and supplement to other remedies. Nevertheless, injunctive relief is an equitable remedy and, although there is no requirement to exhaust other remedies, courts should be cognizant of and consider the availability of such alternatives when awarding equitable relief.

Although these amendments do not prohibit a court from allowing a citizen to litigate pendent claims under State law in a section 7002 action, it is intended that citizens and courts will exercise discretion concerning such claims so that they will not unduly delay or complicate Federal court proceedings or in any other way frustrate or delay the primary purpose of these amendments and section 7003—which is the protection of health and the environment from solid and hazardous waste endangerments. Pendent jurisdiction is a doctrine of discretion, not of plaintiff's right. Its justification lies in considerations of judicial economy, convenience and fairness to litigants; if these are not present a Federal court should hesitate to exercise jurisdiction over State claims, even though bound to apply State law to them. If it appears that the State issues substantially predominate, whether in terms of proof, of the scope of the issues raised, or of the comprehensiveness of the remedy sought, the State claims may be dismissed without prejudice and left for resolution to State tribunals. Pendent jurisdiction, in the sense of judicial power, need not be exercised in every case in which it is found to exist.

All penalties awarded pursant to these amendments, which allow courts in which citizen suits are brought ". . . to apply any appropriate civil penalties under section 3008 (a) and (g)," are to be paid into the United States Treasury. Litigation of any such request or the granting of any such award will not, in any way, limit or preclude the right of the United States to seek or obtain the payment of penalties arising out of the same or related violations, except that the maximum penalty to be paid for each violation shall not exceed that provided for in section 3008.

IMMINENT HAZARD

The reported bill amends section 7003(a) to clarify the breadth of section 7003 as to the persons, conditions and acts it covers. The amendments clearly provide that anyone who has contributed or is contributing to the creation, existence, or maintenance of an imminent and substantial endangerment is subject to the equitable authority of section 7003, without regard to fault or negligence. Such persons include, but are not limited to, past and present generators (both off-site and on-site) of hazardous wastes, past and present owners and operators of waste treatment, storage, or disposal facilities, and past and present transporters of solid or hazardous wastes. In addition, section 7003 is clarified to establish that it applies to any act, whether past or present, which has resulted in or may result in an imminent and substantial endangerment to health or the environment. The Environmental Protection Agency and the Department of Justice have used the equitable authority and orginally granted in section 7003 to seek court orders directing those persons whose past or present acts have contributed to or are contributing to the existence of an imminent and substantial endangerment to abate such conditions. This has been an intended use of section 7003 since 1976. These amendments ratify this practice and confirm that the abatement authority vested in EPA and the courts extends to both past and present acts contributing to an imminent and substantial endangerment.

An evidenced by the definition of "disposal" in section 1004(3), which includes the "leaking" of hazardous wastes, section 7003 has always provided the authority to require the abatement of present conditions of endangerment resulting from past disposal practices, whether intentional or unintentional. These endangerments may be immediate or long-term problems. The section may be used to address any solid or hazardous wastes that fall within the definitions of section 1004 of the Act or have been identified in published regulations.

Moreover, because section 7003 focuses on the abatement of conditions threatening health and the environment and not a particular human activity, it has always reached those persons who have contributed in the past or are presently contributing to the endangerment, including but not limited to generators, regardless of fault or negligence. The amendment, by adding the words "have contributed" is merely intended to clarify the existing authority. Thus, for example, non-negligent generators whose wastes are no longer being deposited or dumped at a particular site may be ordered to abate the hazard to health or the environment posed by the leaking of the wastes they once generated and which have been deposited on the site. The amendment reflects the long-standing view that generators and other persons involved in the handling, storage, treatment, transportation, or disposal of hazardous wastes must share in the responsibility for the abatement of the hazards arising from their activities. The section was intended and is intended to abate conditions resulting from past activities. Hence, the district court decisions in *United States* v. *Wade,* 546 F. Supp. 785 (E.D. Pa. 1982) and *United States* v. *Waste Industries,* No. 80–4–Civ–7 (E.D. N.C. Jan. 3, 1983), which restricted the application of

section 7003, are inconsistent with the authority conferred by the section as initially enacted and with these clarifying amendments.

In addition, due to the nature of the hazards presented by disposal sites, section 7003 is "intended to confer upon the courts the authority to grant affirmative equitable relief to the extent necessary to eliminate any risks posed by toxic wastes." *United States* v. *Price,* 688 F. 2d 204, 213–214 (3d Cir. 1982). An endangerment means a risk of harm, not necessarily actual harm, and proof that the past or present handling, storage, treatment, transportation or disposal of any solid or hazardous waste may present an imminent and substantial endangerment is grounds for an action seeking equitable injunctive relief. *United States* v. *Price, supra,* and *United States* v. *Vertac Chemical Corp.,* 489 F. Supp. 870, 885 (E.D. Ark., W.D. 1980). The primary intent of the provision is to protect human health and the environment; hence, the courts should consider both the nature of the endangerment which may be presented and its likelihood, recognizing that risk may be "assessed from suspected, but not completely substantiated, relationships between facts, from trends among facts, from theoretical projections, from imperfect data, or from probative preliminary data not yet certifiable as 'fact.' " *United States* v. *Vertac Chemical Corp., supra* at 885, citing *Ethyl Corporation* v. *Environmental Protection Agency* No. 73–2205 (D.C. Cir. Jan. 28, 1975) (dissenting op. at 11, 31–33), reversed en banc at 541 F. 2d 1 (D.C. Cir. 1976), cert. den. 426 U.S. 941, (1976). An endangerment is "imminent" and actionable when it is shown that it presents a threat to human health or the environment, even if it may not eventuate or be fully manifest for a period of many years—as may be the case with drinking water contamination, cancer, and many other effects. *United States* v. *Price,* supra, and *United States* v. *Reilly Tar & Chemical Corp.,* Civ. No. 4–80–469 (D. Minn. Aug. 23, 1982) at 10–13.

Some liable parties have erroneously asserted that the United States must exhaust all viable alternatives to injunctive relief, before it may seek such relief under section 7003. The United States need not utilize resources available to it under section 104 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Public Law 96–510) or prove that such resources are unavailable, before it may seek injunctive remedial relief under section 7003 or similar authorities. Section 7003 is an alternative and supplement to other remedies. Nevertheless, section 7003 provides for the awarding of equitable relief and, as with any equitable remedy, requires the court to consider all circumstances of the case and to carefully balance all relevant factors. Cf. *United States.* v. *Price,* supra, at 211.

PUBLIC PARTICIPATION IN SETTLEMENTS

This amendment, adding a new subsection to section 7003, builds upon existing practice in judicial settlements and extends the requirement for public participation in settlements to administrative settlements such as those issued in the form of administrative orders. The Department of Justice and the EPA are required to publish notice of the government's intention to settle any claim it may have under section 7003, provide an opportunity for a public

meeting in the affected area, provide a reasonable opportunity for public comment and withhold final consent to any such agreement or settlement until such time as the requirements of this section have been met.

Currently, the regulations of the Department of Justice require the Attorney General or his designee to publish notice of the government's intention to enter into a consent decree in any suit to enjoin the discharge of pollutants. This procedure has been implemented by lodging consent decree with district courts for thirty (30) days while notification of their lodging is given to the public by publication in the Federal Register. The consent decree is available to the public upon request and the Department of Justice withholds its final consent to the decree until such time as comments are received from any interested person. In the event comments are received, the Department of Justice files such comments with the court. The Department reserves the right to withdraw or withhold its consent to the proposed judgment if the comments, views and allegations concerning the judgment disclose facts for consideration which indicate that the proposed judgment is inappropriate, improper or inadequate.

These procedures have been a useful vehicle for receiving public comment in the past. By filing such comments with the court, together with its written responses to the comments, the Department has supplied the basis for subsequent judicial hearings on the propriety of the entry of specific consent decrees.

The process established pursuant to these amendments is meant to be flexible. For example, less than thrity (30) days for review and comment may be appropriate in, for example, emergency situations where clean up should proceed earlier. Informal public meetings, as opposed to formal public hearings, are required.

In providing public notice under this section, EPA and the Department should use public notice measures such as local newspapers and radio that will effectively reach the affected community. Such notice should supplement publication of notice in the Federal Register.

These amendments do not establish new substantive rights to obtain review or to make the government's exercise of its prosecutorial discretion in deciding whether to enter into a consent decree, covenant not to sue or other agreement subject to judicial review under the Administrative Procedure Act or under the Solid Waste Disposal Act. However, the terms of the agreement are reviewable to assure that they are fair and adequate and are not unlawful, unreasonable, or against public policy.

In some cases, actions under section 7003 of the Solid Waste Disposal Act can also be undertaken pursuant to section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Public Law 96-510)(CERCLA). The government should not bypass this provision by taking all future actions pursuant to section 106 of CERCLA. To the extent that section 106 actions could have been pursued under section 7003 it is intended that such actions should be subject to the requirements of this provision.

COMPATIBILITY OF RECYCLING AND ENERGY RECOVERY

The reported bill amends sections 4001 and 4003, dealing with State or regional solid waste management planning, to require the potential for recycling and materials recovery in an area to be taken into consideration in planning a waste-to-energy facility. Dependence on a certain waste stream as fuel for an energy recovery facility should not be allowed to interfere with the Act's goal of encouraging materials recovery and resource conservation.

CLARIFICATION OF HOUSEHOLD SASTE EXCLUSION

The reported bill adds a subsection (d) to section 3001 to clarify the coverage of the household waste exclusion with respect to resource recovery facilities recovering energy through the mass burning of municipal solid waste. This exclusion was promulgated by the Agency in its hazardous waste management regulations established to exclude waste streams generated by consumers at the household level and by sources whose wastes are sufficiently similar in both quantity and quality to those of households.

Resource recovery facilities often take in such "household wastes" mixed with other, non-hazardous waste streams from a variety of sources other than "households," including small commercial and industrial sources, schools, hotels, municipal buildings, churches, etc. It is important to encourage commercially viable resource recovery facilities and to remove impediments that may hinder their development and operation. New section 3001(d) clarifies the original intent to include within the household waste exclusion activities of a resource recovery facility which recovers energy from the mass burning of household waste and non-hazardous waste from other sources.

All waste management activities of such a facility, including the generation, transportation, treatment, storage and disposal of waste shall be covered by the exclusion, if the limitations in paragraphs (1) and (2) of subsection (d) are met. First, such facilities must receive and burn only household waste and solid waste from other sources which does not contain hazardous waste identified or listed under section 3001.

Second, such facilities cannot accept hazardous wastes identified or listed under section 3001 from commercial or industrial sources, and must establish contractual requirements or other notification or inspection procedures to assure that such wastes are not received or burned. This provision requires precautionary measures or procedures which can be shown to be effective safeguards against the unintended acceptance of hazardous waste. If such measures are in place, a resource recovery facility whose activities would normally be covered by the household waste exclusion should not be penalized for the occasional, inadvertent receipt and burning of hazardous material from such commercial or industrial sources. Facilities must monitor the waste they receive and, if necessary, revise the precautionary measures they establish to assure against the receipt of such hazardous waste.

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REQUIREMENTS IN AUTHORIZED STATES

Several new requirements in the bill are scheduled to take effect upon enactment or by specific dates following enactment. The bill adds a new section 3006(f) to the Act to assure that, for the listed provisions, the requirements apply simultaneously in every State whether or not a State has been authorized to administer and enforce a program under section 3006.

The States that are currently authorized to administer their own programs under section 3006(b) retain that authority with respect to existing program elements. The Environmental Protection Agency will implement the new statutory requirements in each and every State until such State is authorized, in accordance with section 3006, to operate its own equivalent program with respect to those new requirements.

Section 3006 should be administered so as to encourage each State to assume or continue primary responsibility for program administration and to recognize and accommodate the various means by which States may choose to conduct their programs. In this regard, the term "equivalent" as used in section 3006 should not be interpreted to mean "identical", thus requiring an absolute likeness between the State and Federal program requirements. State program requirements and procedures which achieve the same result intended by the requirements of subtitle C should be deemed "equivalent". State provisions can differ as long as they address the Federal program requirements and include State requirements at least as stringent as those of the Federal program. Where the results of different State requirements and procedures cannot be readily measured reasonable judgment should be used to avoid impeding the authorization of State programs by requiring that those programs bear an absolute likeness to the Federal program. Section 3006(a) requires the Administrator to make findings regarding the standards for program approval. Therefore, an analysis more sophisticated than merely requiring verbatim reproduction of Federal provisions is required.

Prior to States' being authorized to administer these new provisions as part of their own programs, the administrator is to work with those States that already have authorized programs to develop, as expeditiously as possible, cooperative agreements to delegate enforcement of these new Federal program elements. As provided in section 3009, nothing in these amendments shall be construed to prohibit any State from imposing any requirements which are more stringent than those imposed by Federal regulation. Therefore, in working with States to develop cooperative enforcement agreements the Administrator is to delegate and accept adequate enforcement of compliance with equivalent State requirements that are more stringent than the new Federal requirements as adequate enforcement of compliance with such new requirements.

The new requirements to be directly applied in every State are those contained in the following sections as amended by this bill: section 3002(b)(1) (notification by small quantity generators of shipments containing hazardous wastes); section 3002(b)(7)(C) (requirement for disposal after March 31, 1986, of hazardous wastes from small quantity generators only in facilities permitted under section

3005); section 3004(b) (deadlines for limiting or prohibiting land disposal of certain wastes); section 3004(d) (ban on dust suppression); section 3004(e) (ban on injection of wastes into certain underground formations); section 3004(f) (minimum technological standards for landfills, surface impoundments and incinerators); section 3004(g) (requirement for correction of continuing releases of hazardous wastes at permitted facilities); section 3004(i) (labeling requirements for fuels produced from hazardous wastes or used oil); section 3005(c) (permit review and renewal requirements for hazardous waste treatment, storage or disposal facilities); section 3005(e) (requirements for owners or operators of land disposal facilities under interim status authorizations); and section 3007(b)(1) (mandatory inspections of treatment, storage or disposal facilities).

AIR EMISSIONS FROM LAND DISPOSAL FACILITIES

This amendment amends section 3004 of the Act to require the Administrator within 30 months after enactment to promulgate regulations for monitoring and control of air emissions from hazardous waste facilities as may be necessary to protect human health and the environment.

There is a considerable body of information indicating that emissions into the air from hazardous waste facilities pose a significant threat to health and the environment. Emissions of volatile chemicals from treatment, storage and disposal of wastes have been estimated to be of a similar magnitude as emissions of the same compounds from industrial processes. Studies of hazardous waste surface impoundments and landfills report that significant quantities of hazardous constituents in the wastes may be emitted into the air. In fact, one quarter of the remedial action sites on the National Priority List under the Comprehensive Emergency Response, Compensation and Liability Act (CERCLA) are included at least in part because of potential threats to health and the environment from emissions of hazardous pollutants into the air.

Proposals to regulate emissions from hazardous waste facilities have been published on several occasions since passage of the Resource Conservation and Recovery Act in 1976. Final regulations have never been issued. The Agency also has authority to regulate emissions of hazardous air pollutants under the Clean Air Act, but its performance under that Act has been appallingly slow.

The bill, therefore, requires regulatory action within 30 months under the Solid Waste Disposal Act, providing substantial flexibility to the Agency in establishing needed controls, so long as they meet the basic requirements of the Act, to protect human health and the environment. Levels of control may be based on such factors as volatility and toxicity of wastes and the type of process being regulated.

Monitoring should be required at hazardous waste facilities where necessary to protect human health and the environment. The Agency is currently monitoring air emissions at a significant number of CERCLA sites. It would be entirely appropriate for the Agency to issue monitoring regulations on an expedited basis, while preparing a control strategy. Such an approach might facili-

tate the gathering of data on the nature and extent of the problem posed by air emissions.

GROUND WATER MONITORING

The reported bill adds to section 3004 of the Act a new subsection (1), which ends certain exceptions from the requirements that hazardous waste treatment, storage, and disposal facilities must monitor ground water near the facility to detect any releases of hazardous constituents from the facilities. New subsection 3004(1) requires that the ground water monitoring requirements must be complied with whether or not: a facility is located entirely above the seasonal high water table; the facility has two liners and a leachate collection system; or the facility's liner (or liners) are periodically inspected.

This section has the effect of nullifying several portions of the regulations adopted by the Agency under section 3004. Current regulations (40 C.F.R. 264.222) exempt a surface impoundment from the ground water monitoring requirement if certain conditions are met, principally that the impoundment is located entirely above the seasonal high water table and has two liners. A similar exemption is provided for waste piles (40 C.F.R. 264.252), and for landfills (40 C.F.R. 264.302). Those exemptions, on their face, do not meet subtitle C's basic requirement of protecting human health and the environment. There is evidence that a leak could occur even from a double-lined disposal facility, and that hazardous constituents can migrate into ground water even if the facility is located entirely above the seasonal high water table. Similarly, current regulations (40 C.F.R. 264.253) exempt a waste pile from the ground water monitoring requirements if it meets certain conditions, principally that the waste pile is located above the seasonal high water table, has a liner, and the wastes are periodically removed and the liner is inspected for cracks. Again, this exemption allows situations to exist that would not be protective of human health and the environment. For example, if an inspection shows a liner is cracked, the owner or operator is required only to repair the crack, not to detect and clean up any releases that may have occurred before the crack was discovered.

The amendment made by this section of the bill does not make any changes to the Agency's regulations concerning ground water monitoring standards other then deleting the indicated exemptions. The provision does not affect other exemptions from the standards. For example, the regulations provide that the owner or operator need not monitor ground water if the Regional Administrator finds "there is no potential for migration of liquid from a regulated unit to the uppermost aquifer during the active life of the unregulated unit (including the closure period) and the post-closure care period". This exemption is not affected by the bill.

The amendment also does not limit the Agency's authority to revise the ground water monitoring regulations now in effect; it merely provides that whatever regulations are or will be in effect shall apply to facilities that, because of the conditions described in the bill, are now exempted from ground water monitoring requirements.

WASTE MINIMIZATION

A statement of national policy is added to section 1003 of the Act, and a requirement that hazardous waste generators certify that they have programs to reduce the amount and toxicity of their waste and that they are using methods to minimize the threat of their wastes to human health and the environment is added to sections 3002 and 3005 of the Act.

The national policy statement emphasizes two concepts. First, Congress declares that, wherever feasible, the generation of hazardous waste is to be reduced or eliminated as expeditiously as possible. Second, waste that is nevertheless generated should be treated, stored or disposed of so as to minimize the present and future threat to human health and the environment.

Current laws emphasize the need to properly treat, store, and dispose of hazardous wastes. While this continues to be a primary element of the Solid Waste Disposal Act and other pollution control laws, additional emphasis must be directed toward (1) minimizing the generation of hazardous wastes and (2) utilizing the best treatment, storage and disposal techniques for each waste.

According to preliminary estimates from recent studies, 150 million metric tons of hazardous waste is generated each year in the United States, and currently subject to subtitle C regulations. This is an enormous volume of pollution requiring the continuing development of environmentally sound treatment, storage, and disposal facilities.

Regardless of the care with which such facilities are managed and the regulatory or legal responsibilities imposed on these facilities, assuring protection of public health and the environment long after the active phase of a facility's existence has ended is a difficult task. The need to minimize the volume and toxicity of all hazardous waste is clear and is made an explicit national policy in this bill. Recycling pollutants contained in effluents, emissions, wastes or other pollution streams is one, but by no means the only, way of implementing this national policy.

For wastes that are generated, the need to employ technologies that minimize present and future threats of harm is reflected in other provisions of this bill (e.g., those that regulate small quantity generators, place limitations on land disposal, establish minimum technological requirements, and regulate the burning and blending of hazardous waste). The statement of national policy broadens and makes explicit the intent of Congress that is implicit in this bill and in existing law.

In addition to the statement of national policy, the Committee adopted several provisions regarding waste minimization: (1) A provision requiring on the manifest required by section 3002 of the Act a certification by the generator that he has a program in place to reduce the volume or quantity and toxicity of hazardous waste to the degree determined by the generator to be economically practicable and that the proposed method of treatment, storage, or disposal is that practicable method currently available to the generator which minimizes the present and future threat to human health and the environment; (2) modifications to the reporting requirement of section 3002, and (3) a requirement for similar self-

certification regarding waste minimization as a condition for on-site storage, treatment, or disposal facility permits after September 1, 1984.

These sections are designed to encourage generators to voluntarily reduce the quantity and toxicity of all waste. While these provisions encourage the reduction of hazardous waste generated, they are directed at the generators of such waste and do not authorize the Environmental Protection Agency or any other person or organization to interfere with or intrude into the production process or production decisions of individual generators. To assure this, it is important to explain in detail the meaning of key elements of the new provisions.

First, both of the certification requirements refer to a certification by a generator that it has a program to minimize waste and as to its treatment, storage or disposal practices. While the requirement to make this certification is mandatory, the nature of the criteria for the certification and the determination of compliance with those criteria are to be made solely by the generator.

Second, the provisions include the term "economically practicable." This is a concept that has been used or alluded to in several laws. However, in this instance, other than defining the phrase, in the statute, the determination of "economically practicable" will be made by the generator and is not subject to subsequent re-evaluation. The generator has the flexibility to determine what is "economically practicable" for the generator's circumstances. Whether this determination is made for all of its operation or on a site-specific basis is for the generator to decide.

Third, explanation of the phrase "the proposed method of treatment, storage or disposal is that practicable method currently available to the generator . . ." is essential. This language is not intended to require the retrofitting of existing facilities, nor is it intended to require the installation or use, either on-site or off-site, of new technologies as they become available. A generator may, of course, choose to retrofit or otherwise utilize new technologies. Use of the term "practicable" in conjunction with the term "currently available" should result in generators choosing alternative treatment, storage, or disposal methods (beyond those generally required to comply with subtitle C), when they are economically practicable. Again, these judgments are to be made solely by the generator.

Fourth, the two determinations that must be certified can be balanced in different ways by a generator. For example, some generators may develop programs that first minimize waste that is generated and then identify and utilize a disposal technology that satisfies the second test. Others may find that the reduction of waste volume would result in increased toxicity. They may find that the present and futur threat to human health and the environment is better addressed in the use of treatment, storage, and disposal methods than in the employment of certain waste reduction methods. Moreover, these provisions are not intended to discourage the recycling of materials. A fundamental premise of the Act is and continues to be to encourage reuse of materials.

There are substantial differences among hazardous waste generators that must be considered. For example, there are important

differences between a manufacturer whose process creates hazardous wastes that are capable of being recycled in the process and a generator who performs a service using products manufactured elsewhere, the residue from which is a hazardous waste. Clearly, the opportunities to minimize waste can be vastly different between these types of generators. The bill does not require waste minimization programs where such programs are not practicable, such as for those generators that are merely utilizing material where there is no practicable method for recycling the residue.

The difficulties in developing waste minimization programs also can be greatly exacerbated with regard to small quantity generators. The waste minimization requirements are not intended to result in a significant paperwork burden for small quantity generators. Prior to the promulgation of additional regulations for small quantity generators required by other provisions of the bill, the waste minimization requirements do not apply to generators of less than 1000 kilograms per month. The special manifest requirement for small quantity generators is imposed by section 3002(b), not by section 3002(a)(5). In developing regulations under the small quantity generator regulation and study provisons of this bill, the Administrator is directed to give special consideration to minimizing any unduly burdensome aspects of these requirements. The Administrator may conclude that neither the reporting or certification requirements of the waste minimization section should be applied to small quantity generators, or specific classes or categories of small quantity generators.

With respect to the certification requirement, this section does not create civil or criminal consequences. Thus, for example, such certifications are not to be treated as a "material statement" under new section 3008(d)(3) of the Act. Nor is the content of these certifications to be cause for challenge regarding the issuance of permits. In keeping with the concept of these provisions, judgments made by the generators are not subject to external regulatory action.

In implementing the biennial reporting requirement, the Agency should not require reports that duplicate the Agency's existing biennial reports. In particular, to the extent that the existing report will provide all or some information required by this subsection, submission of that report should be deemed sufficient to comply with some or all reporting requirements of this subsection. Additionally, it is recognized that the volume and quantity and toxicity of wastes can vary significantly with respect to the production levels of the products associated with the waste and that this can certainly distort the implications of information presented under new section 3002(a)(6)(D).

This section of the reported bill includes two provisions intended to assist Congress, during the next reauthorization of this Act and of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, in considering further measures to achieve the national policy established by this section.

The first provision would add a new subsection 8002(r) to the Act, requiring the Administrator to submit to Congress by October 1, 1986, a report on the feasibility and desirability of expanding the subtitle C program to include requirements for generators of hazardous waste to reduce the volume or quantity and toxicity of the

waste they generate. One such type of requirement which the Agency should evaluate in this report would be substantive standards of performance, similar to those under the Clean Air Act, which would require all generators in a certain category to reduce the volume or quantity and toxicity of their hazardous waste at least as much as could be achieved through the application of measures that are available to generators in that category. The Agency should also evaluate other methods of requiring generators to reduce the volume and toxicity of their hazardous waste, including possible changes to the requirements established by this section's amendments to section 3002 and 3005 of the Act.

The report to Congress also is to include an assessment of the feasibility and desirability of standards prescribing particular management practices that must be followed with respect to particular hazardous wastes. Such required management practices, or similar measures, would be a step beyond the prohibitions on certain methods of land disposal which will be established under section 3004(b) of the Act, as added by this bill; instead of just prohibiting certain management practices because they are not protective of human health and the environment, establishing preferred or required management practices might assure that hazardous wastes are managed only in those ways which the Agency determines are most protective of human health and the environment.

The report addressing these possible changes in the nature of the subtitle C program is to be submitted to Congress by October 1, 1986—one year before the expiration of the authorization for appropriations for the program.

For similar reasons, the second provision accelerates by six months the deadline for the President's comprehensive report to Congress on the initial implementation of the Superfund program and possible changes to it. That report, required by section 301(a)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), is currently required to be submitted within four years of the enactment of CERCLA, or by December 11, 1984. The bill would require the report to be filed within forty-two months of the enactment of CERCLA, or by June 11, 1984. This will assure that Congress has adequate time to review the report in advance of making decisions on revising or extending the Superfund program.

The Superfund report is to include an assessment of the feasibility and desireability of revising the taxes levied under CERCLA so they are based on the likelihood of a release of a hazardous substance and the degree of hazard and risk resulting from any such release, so that the taxes create incentives for proper handling, recycling, incineration, and neutralization of hazardous wastes and disincentives to improper or illegal handling or disposal of hazardous materials. The Agency should consider the potential for "waste-end" taxes to create such incentives and disincentives, as well as the revenue such taxes would produce, when studying the feasibility and desirability of revising the Superfund tax schedule.

TECHNICAL CORRECTIONS

This amendment makes two technical corrections to the Act as amended in 1980 and one correction to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).

The first two corrections redesignate a section and a subsection that were improperly identified in the 1980 amendments to the Act. The third correction makes it clear that CERCLA's tax sunset provision was not intended to apply to taxes for the Post Closure Liability Trust Fund under that Act.

REPORT TO CONGRESS

This amendment requires that the Environmental Protection Agency conduct an inventory of hazardous waste injection wells and report to the Congress not later than March 15, 1984. This provision is necessary because even though preliminary estimates indicate that 57 percent of the hazardous waste generated in the United States is disposed of through deep well injection, virtually no reliable information exists as to these wells and the activities surrounding them. Elsewhere in this bill, the disposal of hazardous waste though injection into or above an aquifer which serves as a drinking water supply is prohibited. An inventory was ordered in order to improve the information base relating to wells below drinking water aquifers.

In conducting the inventory, the Environmental Protection Agency may rely upon information which is already in existence. It is expected that much of the necessary information will be found in the files of State and local agencies. Some of the information, however, will not be found so easily and, for at least twenty wells, the Agency is required to conduct a comprehensive survey.

The inventory and comprehensive survey are to provide the following information:

1. The location and depth of each well;
2. Engineering and construction details of each, including the thickness and composition of its casting, the width and content of the annulus, and pump pressure and capacity;
3. The hydrogeological characteristics of the overlying and underlying strata, as well as that into which the waste is injected;
4. The location and size of all drinking water aquifers penetrated by the well, or within a one-mile radius of the well or within two hundred feet below the well injection point;
5. The location, capacity, and population served by each well providing drinking or irrigation water which is within a five-mile radius of the injection well;
6. The nature and volume of the waste injected during the one-year period immediately preceding the date of the report;
7. The dates and nature of the inspections of the injection well conducted by independent third parties or agents of State, Federal, or local government;
8. The name and address of all owners and operators of the well and any disposal facility associated with it; and

9. Such other information as the Administrator may, in his discretion, deem necessary to define the scope and nature of hazardous waste disposal in the United States through underground injection.

COMMUNITY RELOCATION

This amendment expands the statutory definition of "removal" in section 101(23) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA or Superfund) to provide the Agency with the discretion to fund as part of removal: permanent relocation of businesses, residences, and community facilities; payment of principal and interest on business debts during a temporary relocation (until temporary relocation ends or until permanent relocation is accomplished); and payment of unemployment compensation to individuals unemployed as a result of an evacuation or a relocation. The amendments authorize the Agency to provide permanent relocation as the most appropriate remedy at a site even when the site is not on the National Priorities List. The payment of principal and interest on business debts is limited to those businesses which are located in the area of an evacuation or relocation.

The language is added to clarify the Agency's authority and flexibility to deal with situations such as that presented by dioxin contamination in Missouri. Specifically, the amendment provides that the Agency can move immediately to permanently relocate the residents of a contaminated site if such a step is found to be cost-effective or may be necessary to protect health or welfare. For example, in some cases it may make more sense—economically and socially—to buy up and seal off a highly contaminated residential area immediately, rather than locate the residents indefinitely in temporary housing during a protracted, possibly impractical cleanup.

The amendment also gave the Agency the authority to pay the interest and principal on business debt during a period of temporary relocation. Temporary relocation is intended to protect the residents of a contaminated area, but when a community is evacuated, businesses are cut off from their customers. Their income abruptly ceases, while their obligations continue unabated. Thus, they are not protected, but are harmed. This amendment seeks to hold them harmless with respect to business debt only. There is no intent to make up for lost income.

The Agency also would have specific authority to provide special assistance to individuals unable to work as a result of such an evacuation. In effect, the same assistance would be available as is already available in natural disasters—unemployment and reemployment assistance, food stamps, and grants to meet necessary expenses or serious needs not covered by other aid programs. As under the Disaster Relief Act, this assistance would be provided by Federal agencies with appropriate programs and expertise, using money from the Superfund, and not directly by the Environmental Protection Agency.

This is a clarifying amendment, not substantially altering the scope or intent of the Superfund program.

COST OF LEGISLATION

Section 403 of the Congressional Budget and Impoundment Control Act requires that a statement of the cost of the reported bill, prepared by the Congressional Budget Office, be included in the report. A copy of that statement follows:

U.S. SENATE,
CONGRESSIONAL BUDGET OFFICE,
Washington, D.C., October 27, 1983.

Hon. ROBERT T. STAFFORD,
Chairman, Committee on Environment and Public Works, U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: Pursuant to Section 403 of the Congressional Budget Act of 1974, the Congressional Budget Office has prepared the attached cost estimate for S. 757, the Solid Waste Disposal Act Amendments of 1983. The analyses of the impact of this bill on state and local governments has not been completed, and will be provided separately.

Should the Committee so desire, we would be pleased to provide further details on this estimate.

Sincerely,

RUDOLPH G. PENNER,
Director.

CONGRESSIONAL BUDGET OFFICE—COST ESTIMATE

1. Bill number: S. 757.
2. Bill title: Solid Waste Disposal Act Amendments of 1983.
3. Bill status: As ordered reported by the Senate Committee on Environment and Public Works, July 28, 1983.
4. Bill purpose: This bill amends the Solid Waste Disposal Act, also known as the Resource Conservation and Recovery Act (Public Law 94-580), and authorizes appropriations for fiscal years 1984-1987 for the Environmental Protection Agency (EPA) to administer related programs.

The bill establishes new requirements for generators of small quantities of hazardous wastes, and directs the EPA Administrator to conduct a study and to promulgate additional regulations applicable to such generations. The bill also establishes new requirements regarding land disposal, air emissions from land deposit facilities, groundwater monitoring, and the export of hazardous waste. In addition, the bill directs the EPA Administrator to compile an inventory of all U.S. wells into which hazardous wastes are injected. S. 757 also amends the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 to allow use of superfund money to pay permanent and related costs to residents and businesses and to extend certain disaster relief provisions to individuals unemployed as a result of relcoation.

5. Estimated cost to the Federal Government:

[By fiscal years, in millions of dollars]

	1984	1985	1986	1987	1988
Authorization level	92	97	100	100	.....
Less: Amounts appropriated to date	98	.....	.....	.....	.....
Net additional authorization	.....	97	100	100	.....
Estimated outlays	.....	52	80	89	43

The costs of this bill fall within budget function 300.

Basis of estimate: The authorization levels are stated in the bill. For purposes of this estimate, it is assumed that the entire amounts authorized for fiscal years 1985 through 1987 will be appropriated prior to the start of each fiscal year. Because 1984 appropriations for these programs have already been enacted, there is no additional budget impact as a result of the 1984 authorizations. Outlays were estimed based on historical spending patterns for these and similar programs administered by the EPA.

The authorization for use of superfund money for relocation and related costs could result in additional demand for superfund expenditures—but there is currently no basis for estimating the amounts of such additional expenditures.

6. Estimated cost to State and local governments: No yet available.

7. Estimate comparison: None.

8. Previous CBO estimate: None.

9. Estimate prepared by: Anne E. Hoffman.

10. Estimate approved by: C. G. Nuckols (for James L. Blum, Assistant Director for Budget Analysis).

Rollcall Votes

Section 7(b) of rule XXVI of the Standing Rules of the Senate and the rules of the Committee on Environment and Public Works require that any rollcall votes taken during consideration of the bill be announced in this report.

During the Committee's consideration of S. 757 on July 28, 1983, four rollcall votes were taken, including the Committee vote to report the bill which is announced as 14–1.

Voting in the affirmative to report S. 757 from the full Committee were Senators Stafford, Baker, Chafee, Simpson, Durenberger, Abdnor, Humphrey, Randolph, Bentsen, Burdick, Hart, Moynihan, Mitchell and Baucus. Voting in the negative was Senator Symms.

A motion to adopt an amendment offered by Senator Randolph as a substitute for an amendment offered by Senator Durenberger relating to regulation of small quantity generators was defeated by a vote of 6–9. Voting in the affirmative were Senators Stafford, Chafee, Randolph, Hart, Mitchell, and Moynihan. Voting in the negative were Senators Abdnor, Baker, Baucus, Bentsen, Burdick, Durenberger, Humphrey, Simpson and Symms.

A motion to adopt an amendment offered by Senator Durenberger relating to regulation of small quantity generators was adopted by a vote of 10–5. Voting in the affirmative were Senators Abdnor, Baker, Baucus, Bentsen, Burdick, Durenberger, Hum-

phrey, Moynihan, Simpson and Symms. Voting in the negative were Senators Stafford, Chafee, Randolph, Hart and Mitchell.

A motion to adopt a package of amendments offered by Senator Stafford relating to waste minimization was adopted by a vote of 9–2. Voting in the affirmative were Senators Stafford, Chafee, Durenberger, Randolph, Bentsen, Hart, Mitchell, Moynihan, and Baucus. Voting in the negative were Senators Humphrey and Symms. Voting present were Senators Abdnor and Simpson.

Hearings

The Subcommittee on Environmental Pollution held hearings in both the 97th and 98th Congress on the Solid Waste Disposal Act. Over twelve hundred pages of testimony and exhibits have been included in the hearing record. All hearings have been conducted in Washington, D.C.

In the 98th Congress, the Subcommittee had two mark-up sessions, June 23 and July 20. The Committee conducted two mark-up sessions, July 26 and 28, and on July 28, 1983, voted to order the bill reported.

On May 16, 1983, the Committee reported S. 1283, a bill to amend the Solid Waste Disposal Act to authorize funds for fiscal year 1984. The issues raised by this piece of legislation are addressed in S. 757.

Evaluation of Regulatory Impact

In compliance with section 11(b) of Rule XXVI of the Standing Rules of the Senate, the Committee makes the following evaluation of the regulatory impact of the reported bill.

Most of the provisions of the reported bill are more specific applications of regulatory authority already available to the Administrator under subtitle C of the Solid Waste Disposal Act. Generally no new regulatory burden is created by this bill. Some of these amendments, however, are intended to specifically overrule administrative exclusions or suspensions of regulations.

A principal example is new section 3002(b), closing out an administrative exemption and requiring standards for small quantity generators of hazardous waste. Thousands of individual businesses, including many small businesses, are likely to be affected by this provision. The exact number, and the likely range of costs imposed, is not known. The study required by section 3002(b)(7) will provide this information. The Committee has made an effort, however, to minimize the amount of additional paperwork and recordkeeping which would be imposed on individuals or businesses by these provisions, limiting such requirements to those necessary to protect human health and the environment.

The reported bill is not expected to have any impact on the personal privacy of individuals.

ADDITIONAL VIEWS OF SENATOR HUMPHREY

I was very pleased to be able to vote for Committee passage of the Solid Waste Disposal Act Amendments of 1983, and I commend the bill to the full Senate for prompt consideration and passage. This bill represents a substantial and important piece of work by the Committee, which should close many of the loopholes extant in current law and provide greater protection of human health and the environment.

The Committee has properly recognized that while much remains to be done to ensure proper treatment, storage and disposal of hazardous wastes, the future challenge lies in reducing the total amount of waste generated. Indeed, two amendments to the bill attempt to address this very point. While I fully intend to support these measures on the floor, I am concerned that the Committee received no testimony directly on the issue of waste minimization. I fear, therefore, that we may be legislating in something of a vacuum. It worries me that we may be imposing a substantial paperwork burden on American industry, but perhaps will have nothing to show for it.

By moving from the questions of properly storing, treating and disposing of hazardous wastes to the challenge of reducing their actual generation, we have taken a bold and important step. But I wonder whether our efforts are properly directed. Shortly after the Committee reported this bill, the EPA released the preliminary findings of a study entitled, "National Survey of Hazardous Waste Generators and Treatment, Storage, and Disposal Facilities Regulated under RCRA in 1981." This survey indicates that American industry is generating about 150 million metric tons of hazardous waste per year—nearly four times more than earlier estimates. Perhaps more significant is the fact that only one percent of the generators produce nearly 90 percent of the total amount of hazardous waste. Just as important, only 4 percent of the 40 billion gallons of hazardous wastes generated in 1981 were recycled, according to the study.

These figures suggest that the problem is a very large and important one, and lead me to question whether the best initial approach is indeed a mandatory reporting scheme that applies to all generators, but that provides precious little guidance for them as to what should be reported or what is expected. We run the risk here of creating a false public impression that we have dealt with the problem, when in fact we have not. There is also a danger of a backlash from some segments of industry (small companies in particular) that may perceive this as another senseless bureaucratic and regulatory headache and expense. Needless to say, the effect of such a reaction could be counterproductive to the result the Committee is trying to achieve.

At the very least, I hope the Committee will recognize that we have only just begun our work on the issue of waste minimization. An important step will be to find a suitable means by which to ensure that EPA will use the returned reports to develop a good statistical base on which to consider future changes. It is also my hope that the Committee will hear some testimony from expert witnesses on the specific issue of waste minimization.

My support for the Solid Waste Disposal Act Amendments of 1983 is in no way lessened by my concerns about the issue of waste minimization. Indeed, I am fully prepared to speak on behalf of waste minimization provisions on the floor of Senate. However, I do think it is important that the members of the Committee spend substantially more time on this issue in future years. Protection of human health and the environment is a weighty charge, but in the area of waste minimization we have only just begun to fulfill our mandate.

GORDON J. HUMPHREY.

CHANGES IN EXISTING LAW

In compliance with section 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill as reported are shown as follows: Existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman:

THE SOLID WASTE DISPOSAL ACT

(Public Law 94-580)

AN ACT To provide technical and financial assistance for the development of management plans and facilities for the recovery of energy and other resources from discarded materials and for the safe disposal of discarded materials, and to regulate the management of hazardous waste

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

* * * * * * *

TITLE II—SOLID WASTE DISPOSAL

SUBTITLE A—GENERAL PROVISIONS

* * * * * * *

OBJECTIVES *AND NATIONAL POLICY*

SEC. 1003. *(a)* OBJECTIVES. The objectives of this Act are to promote the protection of health, and then environment and to conserve valuable material and energy resources by—

(1) providing technical and financial assistance to State and local governments and interstate agencies for the development of solid waste management plans (including resource recovery and resource conservation systems) which will promote improved solid waste management techniques (including more effective organizational arrangements), new and improved meth-

ods of collection, separation, and recovery of solid waste, and the environmentally safe disposal of nonrecoverable residues;

(2) providing training grants in occupations involving the design, operation, and maintenance of solid waste disposal systems;

(3) prohibiting future open dumping on the land and requiring the conversion of existing open dumps to facilities which do not pose a danger to the environment or to health;

(4) regulating the treatment, storage, transportation, and disposal of hazardous wastes which have adverse effects on health and the environment;

(5) providing for the promulgation of guidelines for solid waste collection, transport, separation, recovery, and disposal practices and systems;

(6) promoting a national research and development program for improved solid waste management and resource conservation techniques, more effective organizaitonal arrangements, and new and improved methods of collection, separation, and recovery and recycling of solid wastes and environmentally safe disposal of nonrecoverable residues;

(7) promoting the demonstration, construction, and application of solid waste management, resource recovery, and resource conservation systems which preserve and enhance the quality of air, water, and land resources; and

(8) establishing a cooperative effort among the Federal, State, and local governments and private enterprise in order to recover valuable materials and energy from solid waste.

(b) NATIONAL POLICY.—The Congress hereby declares it to be the national policy of the United States that, wherever feasible, the generation of hazardous waste is to be reduced or eliminated as expeditiously as possible. Waste that is nevertheless generated should be treated, stored, or disposed of so as to minimize the present and future threat to human health and the environment.

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SUBTITLE B—OFFICE OF SOLID WASTE; AUTHORITIES OF THE ADMINISTRATOR

* * * * * * *

ANNUAL REPORT

SEC. 2006. *(a) ACTIVITIES OF THE OFFICE.*— * * *

(b) HAZARDOUS WASTE.—(1) The Administrator shall transmit to the Congress and the President, periodically but no less often than every two years a report describing quantities and types of hazardous waste generated, stored, treated, and disposed of. The Administrator shall compile and update such information comparable to that required under section 3002(a)(6) and section 3004(a) (1) and (2).

(2) States with authorized programs under section 3006 shall make available those reports they have received or compiled to assist the Administrator in preparing such report for Congress. The first such report shall cover calendar year 1983 and shall be transmitted to the Congress no later than March 31, 1985.

(3) The authority of section 3007 of this Act shall be available in the implementation of this subsection.

GENERAL AUTHORIZATION

SEC. 2007. (a) GENERAL ADMINISTRATION.—There are authorized to be appropriated to the Administrator for the purpose of carrying out the provisions of this Act, $35,000,000 for the fiscal year ending September 30, 1977, $38,000,000 for the fiscal year ending September 30, 1978, $42,000,000 for the fiscal year ending September 30, 1979, $70,000,000 for the fiscal year ending September 30, 1980, $80,000,000 for the fiscal year ending September 30, 1981, [and] $80,000,000 for the fiscal year ending September 30, 1982, *$43,628,000 for the fiscal year ending September 30, 1983, $45,000,000 for the fiscal year ending September 30, 1984, $47,000,000 per fiscal year for the fiscal years ending September 30, 1985, September 30, 1986, and September 30, 1987.*

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SUBTITLE C—HAZARDOUS WASTE MANAGEMENT

IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SEC. 3001. (a) CRITERIA FOR IDENTIFICATION OR LISTING.—Not later than eighteen months after the date of the enactment of this Act, the Administrator shall, after notice and opportunity for public hearing, and after consultation with appropriate Federal and State agencies, develop and promulgate criteria for identifying the characteristics of hazardous waste, and for listing hazardous waste, which should be subject to the provisions of this subtitle, taking into account toxicity, persistence, and degradability in nature, potential for accumulation in tissue, and other related factors such as flammability, corrosiveness, and other hazardous characteristics. Such criteria shall be revised from time to time as may be appropriate.

(b)(1) IDENTIFICATION AND LISTING.—Not later than eighteen months after the date of enactment of this section, and after notice and opportunity for public hearing, the Administrator shall promulgate regulations identifying the characteristics of hazardous waste, and listing particular hazardous wastes (within the meaning of section 1004(5)), which shall be subject to the provisions of this subtitle. Such regulations shall be based on the criteria promulgated under subsection (a) and shall be revised from time to time thereafter as may be appropriate.

* * * * * * *

(4)(A) The regulations promulgated under paragraph (1) shall provide that, when evaluating a petition to exclude a waste generated at a particular facility from being regulated as a hazardous waste, the Administrator shall consider criteria, constituents, or other related factors, other than those for which the waste was listed, if the Administrator has a reasonable basis to believe that such additional criteria, constituents, or other related factors could cause such waste to be listed as a hazardous waste. The Administrator shall grant or deny such petitions only after notice and opportunity for

public hearing. If the basis for denial of such petition is the presence of additional constituents which could cause such waste to be hazardous, the Administrator shall amend the basis for the listing of such waste to indicate the additional constituents.

(B) The temporary granting of such a petition prior to the enactment of the Solid Waste Disposal Act Amendments of 1983 without the opportunity for public comment and the full consideration of such comment shall not continue for more than twelve months after the date such petition is granted or six months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, whichever is later. If a final decision to grant or deny such a petition has not been promulgated after notice and opportunity for public comment within the time limit prescribed by the preceding sentence, any such temporary granting of such petition shall cease to be in effect.

(C) Any petition to exclude from regulation a waste generated at a particular facility shall be accompanied by adequate information to evaluate such petition, including information on samples of such waste determined to be representative on the basis of guidelines for the development and submission of such information published by the Administrator. Such information shall be certified by a responsible official of such facility (as determined under regulations promulgated under section 3005) to be accurate, complete, and representative, within the knowledge of employees or contractors of such facility.

(5) For the purpose of assuring the timely completion of regulations identifying the characteristics of hazardous waste and the listing of additional particular hazardous wastes, as required by paragraph (1) of this subsection, the Administrator shall—

(A) not later than six months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, identify those particular wastes for which the Agency intends to decide whether to list as hazardous waste within two years after such date of enactment, and those particular wastes for which the Agency intends to decide within five years after such date of enactment;

(B) not later than six months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, promulgate regulations listing chlorinated dioxin- and dibenzofuran-containing wastes as hazardous wastes in accordance with paragraph (1) of this subsection; and

(C) not later than two years after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, (i) promulgate regulations identifying additional characteristics of hazardous waste, including measures or indicators of toxicity; and (ii) reach decisions on all wastes identified in accordance with subparagraph (A) for decision within two years and for each such waste either promulgate regulations listing such particular hazardous waste or publish a statement as to why such waste should not be listed as hazardous waste; and

(D) not later than six months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, determine the appropriateness of using the extraction procedure toxicity characteristic for evaluating petitions to exclude a waste gener-

ated at a particular facility from being regulated as a hazardous waste, and, not later than two years after such date of enactment, make such changes as are necessary in the extraction procedure toxicity characteristic to predict the leaching potential of wastes upon exposure to leaching media more aggressive than the media utilized in the regulation in effect as of such date of enactment.

(6) The Administrator, in cooperation with the Agency for Toxic Substances and Disease Registry and the National Toxicology Program, shall also identify or list those hazardous wastes which shall be subject to the provisions of this subtitle solely because of the presence in such wastes of certain constituents (such as identified carcinogens, mutagens, or teratogens) at levels in excess of levels which endanger human health.

(c) PETITION BY STATE GOVERNOR.—At any time after the date eighteen months after the enactment of this title, the Governor of any state may petition the Administrator to identify or list a material as a hazardous waste. The Administrator shall act upon such petition within ninety days following his receipt thereof and shall notify the Governor of such action. If the Administrator denies such petition because of financial considerations, in providing such notice to the Governor he shall include a statement concerning such considerations.

(d) CLARIFICATION OF HOUSEHOLD WASTE EXCLUSION.—A resource recovery facility recovering energy from the mass burning of municipal solid waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this subtitle, if such facility—

(1) receives and burns only (A) household waste (from single and multiple dwellings, hotels, motels, and other residential sources) and (B) solid waste from commercial or industrial sources that does not contain hazardous waste identified or listed under this section, and

(2) such facility does not accept hazardous wastes identified or listed under this section and the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.

STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

SEC. 3002. *(a) STANDARDS.*—Not later than eighteen months after the date of the enactment of this section, and after notice and opportunity for public hearings and after consultation with appropriate Federal and State agencies, the Administrator shall promulgate regulations establishing such standards, applicable to generators of hazardous waste identified or listed under this subtitle, as may be necessary to protect human health and the environment. Such standards shall establish requirements respecting—

(1) * * *

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[(6) submission of reports to the Administrator (or the State agency in any case in which such agency carries out an authorized permit program pursuant to this subtitle) at such times as

the Administrator (or the State agency if appropriate) deems necessary, setting out—

[(A) the quantities of hazardous waste identified or listed under this subtitle that he has generated during a particular time period; and

[(B) the disposition of all hazardous waste reported under subparagraph (A).]

(6) submission of reports to the Administrator (or the State agency in any case in which such agency carries a permit program pursuant to this subtitle) at least once every two years, setting out—

(A) the quantities and nature of hazardous waste identified or listed under this subtitle that he has generated during the year;

(B) the disposition of all hazardous waste reported under subparagraph (A);

(C) the efforts undertaken during the year to reduce the volume and toxicity of waste generated; and

(D) the changes in volume and toxicity of waste actually achieved during the year in question in comparision with previous years, to the extent such information is available for years prior to enactment of this subparagraph.

(b) HAZARDOUS WASTE FROM SMALL QUANTITY GENERATORS.—(1) Beginning two hundred and seventy days after the enactment of the Solid Waste Disposal Act Amendments of 1983, any hazardous waste listed or identified under section 3001 which is part of a total quantity generated by a generator generating greater than one hundred kiiograms but less than one thousand kilograms during one calendar month and which is shipped off the premises on which waste is generated shall be accompanied by a copy of the Environmental Protection Agency uniform hazardous waste manifest form signed by the generator. This form shall contain the following information:

(A) the name and address of the generator of the waste;

(B) the United States Department of Transportation description of the waste, including the proper shipping name, hazard class, and identification number (UN/NA), if applicable;

(C) the number and type of containers;

(D) the quantity of waste being transported; and

(E) the name and address of the facility designated to receive the waste.

If subparagraph (B) is not applicable, in lieu of the description referred to in such subparagraph (B), the form shall contain the Environmental Protection Agency identification number, or a generic description of the waste, or a description of the waste by hazardous waste characteristic. Additional requirements related to the manifest shall apply only if determined necessary by the Administrator to protect human health and the environment. The Administrator is authorized to apply the requirements of this paragraph to hazardous waste which is part of a total quantity generated by a generator generating less than one hundred kilograms during one calendar month.

(2)(A) Any hazardous waste identified in accordance with section 3001 on the basis of the characteristic of ignitability, reactivity, or

corrosivity or listed under section 3001, which is part of a total quantity generated by a generator generating greater than one hundred kilograms but less than one thousand kilograms during one calendar month when such waste is transported off the premises on which such waste is generated, shall be placed in suitable, sound, nonleaking containers as follows:

(i) off-specification materials, residual materials, and materials from spill cleanup may be placed in the original containers of such materials, or in equivalent containers labeled with the same information as the original containers and suitably constructed to contain such materials;

(ii) a waste may be placed in a Department of Transportation specification hazardous material container with prescribed labeling in compliance with the Hazardous Materials Transportation Act; and

(iii) other wastes may be placed in a container or otherwise handled by a method (including a method of identification or labeling consistent with this subparagraph) mutually agreed by the generator and the transporter of such wastes.

Wastes that are not incompatible may be aggregated in such suitable containers. For the purpose of this subparagraph, aggregation means the mixing of two or more types of wastes within the innermost container.

(B) Except as provided in paragraph (7) or under State law, a generator generating waste subject to this paragraph shall not be subject to additional requirements for manifesting, recordkeeping, or reporting beyond those in regulations promulgated prior to January 1, 1983.

(3) Until the effective date of regulations promulgated under paragraph (7), or as specified in paragraph (7)(C), any hazardous waste identified or listed under section 3001 generated by any generator during any calendar month in a total quantity less than one thousand kilograms, which is not treated, stored, or disposed of at a hazardous waste treatment, storage, or disposal facility with a permit under section 3005, shall be disposed of only in a facility which is permitted, licensed, or registered by a State to manage municipal or industrial solid waste.

(4) The provisions of paragraphs (2) and (3) shall take effect on the date two hundred and seventy days after the enactment of the Solid Waste Disposal Act Amendments of 1983.

(5) Requirements under section 3004 for storage of hazardous waste identified or listed under section 3001 which is generated by any generator during any calendar month in a total quantity less than one thousand kilograms shall provide for onsite storage in tanks and containers of such hazardous waste for up to one hundred and eighty days, unless the generator must ship or haul such waste over two hundred miles in which case such requirements shall provide for onsite storage for up to two hundred and seventy days of up to six thousand kilograms of such hazardous waste.

(6) Nothing in this subsection shall be construed to affect, modify, or render invalid any requirements applicable to any acutely hazardous waste identified or listed under section 3001 which is generated by any generator during any calendar month in a total quantity less than one thousand kilograms, in regulations promulgated

prior to January 1, 1983. Any additional acutely hazardous waste listed under section 3001 after January 1, 1983, shall be subject to all regulations applicable to acutely hazardous wastes.

(7)(A) The Administrator in cooperation with the States shall conduct a study of hazardous waste identified or listed under section 3001 of this Act which is generated by individual generators in total quantities for each generator during any calendar month of less than one thousand kilograms. The Administrator may require from such generators information as may be necessary to conduct the study. Such study shall include a characterization of the number and type of such generators, the quantity and characteristics of hazardous waste generated by such generators, State requirements applicable to such generators, the individual and industry waste management practices of such generators, the potential costs of modifying those practices and the impact of such modifications on national treatment and disposal facility capacity, and the threat to the protection of human health and the environment and the employees of transporters or others involved in solid waste management posed by such hazardous wastes or such management practices. Such study shall specifically address whether the requirements of paragraph (2) should apply to hazardous wastes identified on the basis of the characteristic of extraction procedure toxicity or additional characteristics promulgated under section 3001(b)(5). Such study shall be submitted to the Congress not later than March 31, 1985.

(B) Based upon the study required by subparagraph (A) and other information available to the Administrator and after consultation with the States, the Administrator shall promulgate not later than March 31, 1986, additional regulations establishing such requirements under this section and sections 3003, 3004, and 3005 of this Act for hazardous waste identified or listed under section 3001 which is generated by a generator during any calendar month in a total quantity less than one thousand kilograms, as may be necessary to protect human health and the environment. Such requirements may supplement the requirements of paragraphs (1) through (5) of this subsection and may distinguish among classes and categories of generators or waste, and may vary from the requirements applicable to hazardous waste generated in quantities greater than one thousand kilograms during any calendar month, to the extent the Administrator determines such standards are adequate to protect human health and the environment. The Administrator shall consider State requirements applicable to generators of hazardous wastes which generate such wastes in a total quantity less than one thousand kilograms per month in promulgating such regulations and shall explain differences between State requirements and regulations promulgated under this subparagraph. Except as provided in paragraph (5), regulations promulgated under this paragraph shall provide that treatment, storage, or disposal of a hazardous waste identified or listed under section 3001 generated by a generator during any calendar month in a total quantity less than one thousand kilograms occur only at a treatment, storage, or disposal facility with a permit under section 3005. The Administrator may establish in such regulations a total quantity of wastes generated by a generator during any calendar month, not to exceed one hundred kilograms, for which disposal may occur in compliance with para-

graph (3) rather than the preceding sentence, if the Administrator determines that such compliance will be adequate to protect human health and the environment. Such quantity may vary for different wastes or classes of wastes.

(C) In the case no regulations in accordance with subparagraph (B) of this paragraph have been promulgated prior to March 31, 1986, after such date—

(i) all treatment, storage, or disposal of any hazardous waste identified or listed under section 3001 generated by a generator during any calendar month in a total quantity greater than one hundred kilograms but less than one thousand kilograms shall occur only at a treatment, storage, or disposal facility with a permit under section 3005;

(ii) generators of such waste shall file manifest exception reports as required by generators producing quantities greater than one thousand kilograms per month except that such reports shall be filed by January 31, for any waste shipment occurring in the last half of the preceeding calendar year, and by July 31, for any waste shipment occurring in the first half of the calendar year; and

(iii) generators of such waste shall retain for three years a copy of the manifest signed by the designated facility that has received the waste.

(D) The Administrator shall undertake activities to inform and educate waste generators of their responsibilities under this section during the period after enactment to help assure compliance.

(c) WASTE MINIMIZATION.—Effective September 1, 1984, the manifest required by subsection (a)(5) shall contain a certification by the generator that—

(1) the generator of the hazardous waste has a program in place to reduce the volume or quantity and toxicity of such waste to the degree determined by the generator economically practicable; and

(2) the proposed method of treatment, storage, or disposal is that practicable method currently available to the generator which minimizes the present and future threat to human health and the environment.

STANDARDS APPLICABLE TO TRANSPORTERS OF HAZARDOUS WASTE

SEC. 3003. (a) * * *

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(c) FUEL FROM HAZARDOUS WASTE.—Not later than two years after the date of enactment of the Solid Waste Disposal Act Amendments of 1983 and after opportunity for public hearing, the Administrator shall promulgate regulations establishing standards, applicable to transporters of fuel produced (1) from any hazardous waste identified or listed under section 3001, or (2) from any hazardous waste identified or listed under section 3001 and any other material, as may be necessary to protect human health and the environment. Such standards may include any of the requirements set forth in paragraphs (1) through (4) of subsection (a) as may be appropriate.

STANDARDS APPLICABLE TO OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

SEC. 3004. *(a) STANDARDS.—* * **

(b) LAND DISPOSAL LIMITATIONS.—(1) The Congress finds that certain classes of land disposal facilities are not capable of assuring long-term containment of certain hazardous wastes, and that to avoid substantial risk to human health and the enviroment, reliance on land disposal should be minimized and land disposal, particularly landfill and surface impoundment, should be the least favored method for managing hazardous wastes. Therefore, the Administrator shall, after notice and opportunity for hearings and after consultation with appropriate Federal and State agencies, promulgate regulations prohibiting the land disposal of hazardous wastes, except for methods of land disposal of one or more such wastes which the Administrator determines will be protective of human health and the environment. If the Administrator determines that a method of land disposal of a hazardous waste will be protective of human health and the environment, he shall promptly publish in the Federal Register notice of such determination together with an explanation of the basis for such determination. The Administrator shall take into account the persistence, toxicity, mobility, and propensity to bioaccumulate of such hazardous waste, and the potential effect of such waste on the integrity of containment mechanisms.

(2) For the purposes of this subsection, if a specified waste contains significant concentrations of one or more hazardous constituents that is highly toxic, highly mobile, or has a strong propensity to bioaccumulate, a method of land disposal may not be determined to be protective of human health and the environment for such specified hazardous waste, unless upon application by an interested person it has been demonstrated to the Administrator, to a reasonable degree of certainty, that there will be no migration of such constituents from the disposal unit or injection zone for as long as the wastes remain hazardous.

(3) A prohibition in regulations under this subsection shall be effective immediately upon promulgation, unless the Administrator establishes another effective date with respect to a specific hazardous waste on the basis of the earliest date on which adequate alternative treatment, recovery, or disposal capacity which protects human health and the environment will be available, which shall in no event be later than two years after the date of promulgation. The Administrator, after notice and opportunity for comment and after consultation with appropriate State agencies in all affected States, may grant an extension of such effective date on a case-by-case basis for up to one year, renewable for no more than one additional year, where the applicant demonstrates that there is a binding contractual commitment to construct or otherwise provide such alternative capacity but due to circumstances beyond the control of such applicant such alternative capacity cannot reasonably be made available by such effective date.

(4) Not later than July 1, 1985, the Administrator shall promulgate regulations in accordance with paragraph (1) for dioxin-containing hazardous wastes and those hazardous wastes numbered

F001, F002, F003, F004, and F005 in regulations promulgated by the Administrator under section 3001 (40 C.F.R. 261.31), as those regulations are in effect on July 1, 1983;

(5) Not later than thirty-two months after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall promulgate regulations in accordance with paragraph (1) for the following hazardous wastes:

(A) Liquid hazardous wastes, including free liquids associated with any solid or sludge, containing free cyanides at concentrations greater than or equal to 1,000 mg/l.

(B) Liquid hazardous wastes, including free liquids associated with any solid or sludge, containing the following dissolved metals (or elements) or compounds of these metals (or elements) at concentrations greater than or equal to those specified below:

(i) arsenic and/or compounds (as As) 500 mg/l;

(ii) cadmium and/or compounds (as Cd) 100 mg/l;

(iii) chromium (VI and/or compounds (as CR VI)) 500 mg/l;

(iv) lead and/or compounds (as Pb) 500 mg/l;

(v) mercury and/or compounds (as Hg) 20 mg/l;

(vi) nickel and/or compounds (as Ni) 134 mg/l;

(vii) selenium and/or compounds (as Se) 100 mg/l; and

(viii) thallium and/or compounds (as Th) 130 mg/l.

(C) Liquid hazardous waste having a pH less than or equal to two (2.0).

(D) Liquid hazardous wastes containing polychlorinated biphenyls at concentrations greater than or equal to 50 ppm.

(E) Hazardous wastes containing halogenated organic compounds in total concentration greater than or equal to 1,000 mg/kg.

When necessary to protect human health and the environment, the Administrator shall substitute more stringent concentration levels than the levels specified in subparagraphs (A) through (E).

(6)(A) Not later than twelve months after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall publish a schedule for deciding whether or not to prohibit in accordance with paragraph (1) the land disposal of each hazardous waste listed under section 3001. Such schedule shall require that the Administrator must make such decisions for at least one-third of all such listed wastes by the date thirty-two months after the date of such enactment, for at least two-thirds of all such listed wastes by the date forty-two months after the date of such enactment, and for all such listed wastes by the date fifty-two months after the date of such enactment.

(B) Not later than the date specified in subparagraph (A) for each waste on the schedule published under such subparagraph, the Administrator shall promulgate regulations in accordance with paragraph (1) for each such waste.

(C) Not later than fifty-two months after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall promulgate regulations in accordance with paragraph (1) for each hazardous waste identified on the basis of any toxicity characteristics.

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(D) Not later than thirty-two months after the listing of a hazardous waste listed after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall promulgate regulations in accordance with paragraph (1) for such waste.

(7) Simultaneously with the promulgation of regulations under paragraph (1) prohibiting one or more methods of land disposal of a particular hazardous waste, and as appropriate thereafter, the Administrator shall, after notice and an opportunity for hearings and after consultation with appropriate Federal and State agencies, promulgate regulations specifying those methods of treatment, if any, which are necessary before such method or methods of disposal of such hazardous waste would be protective of human health and the environment. Notwithstanding the provisions of subsection 3010(b), immediately upon the promulgation of regulations under this paragraph, the disposal of such hazardous waste by such method or methods is allowed if such hazardous waste has first been treated by a method specified in regulations promulgated under this paragraph.

(8)(A) Any hazardous waste prohibited under this subsection from disposal in a surface impoundment may be treated or stored in a surface impoundment only if that impoundment is equipped with at least one liner.

(B) For the purposes of this section, "disposal" shall include the placement of hazardous waste in a surface impoundment or a waste pile for a period of more than six months, regardless of whether it is intended that the hazardous waste will be removed before closure of the facility.

(9) If the Administrator fails to promulgate regulations under paragraph (1) with respect to a waste referred to in paragraph (4) or in paragraph (5) by the deadline specified in such paragraph, effective six months after such deadline, and until the Adminstrator promulgates regulations under paragraph (1), such waste may be disposed of in a landfill or a surface impoundment only if such facility is in compliance with the requirements of section 3004(f)(1) of this Act. This paragraph shall not apply to contaminated soil and debris from the cleanup or removal of any release of a hazardous substance.

(c) LIQUIDS IN LANDFILLS.—Not later than one year after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall promulgate final regulations which minimize the disposal of liquid containerized hazardous waste in landfills (including the minimization of free liquids by other means than the addition of absorbent material, where technologically feasible), and which prohibit the disposal of bulk or noncontainerized liquid hazardous wastes in landfills. Prior to the promulgation of such final regulations, the requirements in regulations under this section respecting the disposal of landfills of liquid hazardous waste and free liquids contained in hazardous waste in effect as of October 1, 1982, shall remain in effect.

(d) BAN ON DUST SUPPRESSION.—The use of waste or used oil or other material, which is contaminated or mixed with dioxin or any other hazardous waste identified or listed under section 3001 (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment is prohibited.

(e) BAN ON CERTAIN WELLS.—Effective one hundred and eighty days after the enactment of the Solid Waste Disposal Act Amendments of 1983, no hazardous waste may be disposed of by underground injection into or above any formation which contains, within one-half mile of the well used for such underground injection, and underground source of drinking water.

(f) MINIMUM TECHNOLOGICAL REQUIREMENTS.—The regulations under subsection (a) of this section shall be revised from time to time to take into account improvements in the technology of control and measurement. At a minimum, such regulations shall require, and a permit issued after the date of enactment of the Solid Waste Disposal Act Amendments of 1983 by the Administrator or a State shall require—

(1) for each new landfill or surface impoundment, each new landfill or surface impoundment unit at an existing facility, each replacement of an existing landfill or surface impoundment unit, and each lateral expansion of an existing landfill or surface impoundment unit, for which a completed application for a permit under section 3005(c) is received after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, with respect to all waste received after the issuance of such permit, the installation of two or more liners and a leachate collection system above (in the case of a landfill) and between such liners (unless the owner or operator demonstrates to the Administrator, and the Administrator finds for such landfill or surface impoundment, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents into the groundwater or surface water at least as effectively as such liners and leachate collection systems), together with ground water monitoring; and

(2) for each incinerator which receives a permit under section 3005(c) after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, the attainment of the minimum destruction and removal efficiency required by regulations in effect on June 24, 1982.

In addition, such regulations shall specify criteria for the acceptable location of new and existing treatment, storage, or disposal facilities as necessary to protect human health and the environment. The Administrator shall determine whether to modify the requirements of paragraph (1) for liners and leachate collection systems in the case of landfills or surface impoundments receiving solid waste from the extraction, beneficiation or processing of ores and minerals, including phosphate rock and overburden from the mining of uranium ore, if such solid waste is subject to regulation under this subtitle, and shall, if he so determines, so modify such requirements to the extent such modified requirements assure protection of human health and the environment.

(g) CONTINUING RELEASES AT PERMITTED FACILITIES.—Standards promulgated under this section shall require, and a permit issued after the date of enactment of the Solid Waste Disposal Act Amendments of 1983 by the Administrator or a State shall require, corrective action for all releases of hazardous waste or constituents from any solid waste management unit at a treatment, storage, or dispos-

al facility seeking a permit under this subtitle, regardless of the time at which waste was placed in such unit. Permits issued under section 3005 shall contain schedules of compliance for such corrective action (where such corrective action cannot be completed prior to issuance of the permit) and assurances of financial responsiblity for completing such corrective action.

(h) HAZARDOUS WASTE USED AS FUEL.—(1) Not later than two years after the date of the enactment of the Solid Waste Disposal Act Amendments of 1983, and after notice and opportunity for public hearing, the Administrator shall promulgate regulations establishing such—

(1) standards applicable to the owners and operators of facilities which produce a fuel, (A) from any hazardous waste identified or listed under section 3001, or (B) from any hazardous waste identified or listed under section 3001 and any other material;

(2) standards applicable to the owners and operators of facilities which burn, for purposes of energy recovery, any fuel produced as provided in paragraph (1) or any fuel which otherwise contains any hazardous waste identified or listed under section 3001; and

(3) standards applicable to any person who distributes or markets any fuel which is produced as provided in paragraph (1) or any fuel which otherwise contains any hazardous waste identified or listed under section 3001.

as may be necessary to protect human health and the environment. Such standards may include any of the requirements set forth in paragraphs (1) through (7) of subsection (a) as may be appropriate. Nothing in this subsection shall be construed to affect or impair the provisions of section 3001(b)(3). For purposes of this subsection, the term "hazardous waste listed under section 3001" includes any commercial chemical product which is listed under section 3001 and which, in lieu of its original intended use, is (A) produced for use as (or as a component of) a fuel, (B) distributed for use as a fuel, or (C) burned as a fuel.

(2)(A) This subsection, subsection (i), and subsection (j) shall not apply to petroleum refinery wastes containing oil which are converted into petroleum coke at the same facility at which such wastes were generated, unless the resulting coke product would exceed one or more characteristics by which a substance would be identified as a hazardous waste under section 3001.

(B) The Administrator may exempt from the requirements of this subsection, subsection (i), or subsection (j) facilities which burn de minimis quantities of hazardous waste as fuel, as defined by the Administrator, if the wastes are burned at the same facility at which such wastes are generated; the waste is burned to recover useful energy, as determined by the Administrator on the basis of the design and operating characteristics of the facility and the heating value and other characteristics of the waste; and the waste is burned in a type of device determined by the Administrator to be designed and operated at a destruction and removal efficiency sufficient such that protection of human health and environment is assured.

(i) LABELING.—(1) Notwithstanding any other provision of law, until such time as the Administrator promulgates standards under subsection (h) specifically superceding this requirement, it shall be unlawful for any person who is required to file a notification in accordance with paragaraph (1) or (3) of section 3010 to distribute or market any fuel which is produced from any hazardous waste identified or listed under section 3001, or any fuel which otherwise contains any hazardous waste identified or listed under section 3001 if the invoice or the bi'l of sale fails—

(A) to bear the following statement: "WARNING: THIS FUEL CONTAINS HAZARDOUS WASTES", and

(B) to list the hazardous wastes contained therein.

Beginning ninety days after the enactment of the Solid Waste Disposal Act Amendments of 1983, such statement shall be located in a conspicuous place on every such invoice or bill of sale and shall appear in conspicuous and legible type in contrast by typography, layouts, or color with other printed matter on the invoice or bill of sale.

(2) Unless the Administrator determines otherwise as may be necessary to protect human health and the environment, this subsection shall not apply to fuels produced from petroleum refining waste containing oil if (A) such materials are generated and reinserted onsite into the refining process; (B) contaminants are removed; and (C) such refining waste containing oil is converted along with normal process streams into petroleum-derived fuel products at a facility at which crude oil is refined into petroleum products and which is classified as a number SIC 2911 facility under the Office of Management and Budget Standard Industrial Classification Manual.

(3) Unless the Administrator determines otherwise as may be necessary to protect human health and the environment, this subsection shall not apply to fuels produced from used oil, resulting from normal petroleum refining production and transportation practices, if (A) contaminants are removed; and (B) such used oil is converted along with normal process streams into petroleum-derived fuel products at a facility at which crude oil is refined into petroleum products and which is classified as a number SIC 2911 facility under the Office of Management and Budget Standard Classification manual.

(j) RECORDKEEPING.—Not later than twelve months after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall promulgate regulations requiring that any person who is required to file a notification in accordance with subparagraph (1), (2), or (3), of paragraph 3010(a) must maintain such records regarding fuel blending, distribution, or use as may be necessary to protect human health and the environment.

(k) AIR EMISSIONS.—Not later than thirty months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall promulgate such regulations for the monitoring and control of air emissions at hazardous waste treatment, storage, and disposal facilities, including but not limited to open tanks, surface impoundments, and landfills, as may be necessary to protect human health and the environment.

(l) GROUND WATER MONITORING.—The standards under this section concerning ground water monitoring which are applicable to

surface impoundments, waste piles, land treatment units, and landfills shall apply to such a facility whether or not—

(1) the facility is located above the seasonal high water table;

(2) two liners and a leachate collection system have been installed at the facility; or

(3) the owner or operator inspects the liner (or liners) which has been installed at the facility.

PERMITS FOR TREATMENT, STORAGE, OR DISPOSAL OF HAZARDOUS WASTE

SEC. 3005. (a) * * *

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(c) PERMIT ISSUANCE.—Upon a determination by the Administrator (or a State, if applicable), of compliance by a facility for which a permit is applied for under this section with the requirements of this section and section 3004, the Administrator (or the State) shall issue a permit for such facilities. In the event permit applicants propose modification of their facilities, or in the event the Administrator (or the State) determines that modifications are necessary to conform to the requirements under this section and section 3004, the permit shall specify the time allowed to complete the modifications. *Any permit under this section shall be for a fixed term, not to exceed ten years in the case of any land disposal facility, incinerator or other treatment facility. Each permit for a land disposal facility shall be reviewed five years after date of issuance or reissuance and shall be modified as necessary to assure that the facility continues to comply with the currently applicable requirements of this section and section 3004. Nothing in this subsection shall preclude the Administrator from reviewing and modifying a permit at any time during its term. Review of any application for a permit renewal shall consider improvements in the state of control and measurement technology as well as changes in applicable regulations. Each permit issued under this section shall contain such terms and conditions as the Administrator (or the State) determines necessary to protect human health and the environment.*

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(e) INTERIM STATUS.—Any person who—

(1) owns or operates a facility required to have a permit under this section which facility is in existence on November 19, 1980.

(2) has complied with the requirements of section 3010(a), and

(3) has made an application for a permit under this section shall be treated as having been issued such permit until such time as final administrative disposition of such application is made, unless the Administrator or other plaintiff proves that final administrative disposition of such application has not been made because of the failure of the applicant to furnish information reasonably required or requested in order to process the application. *The owner or operator of a waste pile qualifying for the authorization to operator under this subsection shall be subject to the same requirements for liners and leachate collection systems or equivalent protection provided in regulations*

promulgated by the Administrator under section 3004 before October 1, 1982, or revised under section 3004(f), for new facilities receiving individual permits under subsection (c) of this section, with the respect to each new unit, replacement of an existing unit, or lateral expansion of an existing unit that is within the waste management area identified in the permit application submitted under this section, and with respect to waste received beginning six months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983. The owner or operator of a landfill or surface impoundment qualifying for the authorization to operate under this subsection shall be subject to the requirements of section 3004(f), with respect to each new unit, replacement of an existing unit, or lateral expansion of an existing unit that is within the waste management area identified in the permit application submitted under this section, and with respect to waste received beginning six months after such date of enactment. The owner or operator of each such unit shall notify the Administrator (or the State, if appropriate) at least sixty days prior to receiving waste. The Administrator (or the State) shall require the filing of a completed permit application within six months of receipt of such notice, for each facility submitting such notice. In the case of any unit in which the liner and leachate collection system has been installed pursuant to the requirements of this subsection and in good faith compliance with the Administrator's regulations and guidance documents governing liners and leachate collection systems, no liner or leachate collection system which is different from that which was so installed pursuant to this subsection shall be required for such unit by the Administrator when issuing the first permit under this section to such facility. The Administrator may, under section 3004, amend the requirements for liners and leachate collection systems required under this subsection as may be necessary to provide additional protection for human health and the environment.

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(g) The standards concerning ground water monitoring, unsaturated zone monitoring, and corrective action, which are applicable under section 3004 to new landfills, surface impoundments, land treatment units, and waste-pile units required to be permitted under subsection (c) shall also apply to any landfill, surface impoundment, land treatment unit, or waste-pile unit qualifying for the authorization to operate under subsection (e) which receives hazardous waste after July 26, 1982.

(h) Waste Minimization.—Effective September 1, 1984, it shall be a condition of any permit issued under this section for the treatment, storage, or disposal of hazardous waste on the permises where such waste was generated that the permittee certify, no less often than annually that—

(1) the generator of the hazardous waste has a program is place to reduce the volume or quantity and toxicity of such waste to the degree determined by the generator to be economically practicable; and

(2) the proposed method of treatment, storage, or disposal is that practicable method currently available to the generator which minimizes the present and future threat to human health and the environment.

AUTHORIZED STATE HAZARDOUS WASTE PROGRAMS

SEC. 3006. (a) * * *

* * * * * * *

(f) IMMEDIATE IMPLEMENTATION.—The requirements of sections 3002(b)(1), 3002(b)(7)(C), 3004 (b), (d), (e), (f), (g), and (i), 3005 (c) and (e), and 3007(b)(1) shall apply directly in all States, including each State with a program authorized under this section, until the program of such State is authorized to operate in lieu of the Federal program with respect to such requirement.

INSPECTIONS

SEC. 3007. (a) * * *

(b) MANDATORY INSPECTIONS.—(1) Beginning twelve months after the enactment of the Solid Waste Disposal Act Amendments of 1983, every facility for the treatment, storage, or disposal of hazardous waste for which a permit is required under section 3005 of this title shall be thoroughly and regularly inspected no less often than every two years as to its compliance with this subtitle and the regulations promulgated thereunder. The Administrator shall, after notice and opportunity for public comment, promulgate regulations governing the minimum frequency and manner of such inspections, including the manner in which records of such inspections shall be maintained. The Administrator may distinguish between classes and categories of facilities commensurate with the risks posed by each class or category.

(2) Not later than six months after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall submit to the Congress a report on the potential for inspections of hazardous waste treatment, storage, or disposal facilities by nongovernmental inspectors as a supplement to inspections conducted by officers, employees, or representatives of the Environmental Protection Agency or States having authorized hazardous waste programs or operating under a cooperative agreement with the Administrator. Such report shall be prepared in cooperation with the States, insurance companies offering environmental impairment insurance, and independent companies providing inspection services, and other such groups as appropriate. Such report shall contain recommendations on provisions and requirements for a program of private inspections to supplement governmental inspections.

[(b)](c) * * *

(d) FACILITIES OPERATED BY A FEDERAL AGENCY.—Beginning twelve months after enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall, and the State, in the case of a State with an authorized hazardous waste program, may undertake no less often than every two years a thorough inspection of each facility for the treatment, storage, or disposal of hazardous waste which is operated by a Federal agency as to its compliance

with this subtitle and the regulations promulgated thereunder. The records of such inspections shall be available to the public as provided in subsection (c).

(e) STATE-OPERATED FACILITIES.—The Administrator shall undertake a thorough inspection of every facility for the treatment, storage, or disposal of hazardous waste which is operated by a State or local government for which a permit is required under section 3005 of this title. The records of such inspection shall be available to the public as provided in subsection (c).

FEDERAL ENFORCEMENT

SEC. 3008. (a) * * *

* * * * * * *

(d) CRIMINAL PENALTIES.—Any person who—

(1) knowingly transports *or causes to be transported* any hazardous waste identified or listed under this subtitle to a facility which does not have a permit under [section 3005 (or 3006 in case of a State program)] *this subtitle,* or pursuant to title I of the Marine Protection, Research, and Sanctuaries Act (86 Stat. 1052),

(2) knowingly treats, stores, or disposes of any hazardous waste identified or listed under this subtitle [either]—

(A) without having obtained a permit under [section 3005 (or 3006 in the case of a State program)] *this subtitle* or pursuant to title I of the Marine Protection, Research, and Sanctuaries Act (86 Stat. 1052); or

[(B) in knowing violation of any material condition or requirement of such permit;]

(B) in knowing violation of any material condition or requirement of such permit; or

(C) in knowing violation of any material condition or requirement of any applicable interim status regulations or standards;

[(3) knowingly makes any false material statement or representation in any application, label, manifest, record, report, permit or other document filed, maintained, or used for purposes of compliance with this subtitle; or

[(4) knowingly generates, stores, treats, transports, disposes of, or otherwise handles any hazardous waste (whether such activity took place before or takes place after the date of the enactment of this paragraph) and who knowingly destroys, alters, or conceals any record required to be maintained under regulations promulgated by the Administrator under this subtitle shall, upon conviction, be subject to a fine of not more than $25,000 ($50,000 in the case of a violation of paragraph (1) or (2)) for each day of violation, or to imprisonment not to exceed one year (two years in the case of a violation of paragraph (1) or (2)), or both. If the conviction is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two years, or by both.]

(3) knowingly omits material information or makes any false material statement or representation in any application, label, manifest, record, report, permit, or other document filed, maintained, or used for purposes of compliance with regulations promulgated by the Administrator (or by a State in the case of an authorized State program) under this subtitle;

(4) knowingly generates, stores, treats, transports, disposes of, exports, or otherwise handles any hazardous waste (whether such activity took place before or takes place after the date of the enactment of this paragraph) and who knowingly destroys, alters, conceals, or fails to file any record, application, manifest, report, or other document required to be maintained or filed for purposes of compliance with regulations promulgated by the Administrator (or by a State in the case of an authorized State program) under this subtitle;

(5) knowingly transports without a manifest, or causes to be transported without a manifest, any hazardous waste required by regulations promulgated under this subtitle (or by a State in the case of a State program authorized under this subtitle) to be accompanied by a manifest; or

(6) knowingly exports a hazardous waste identified or listed under this subtitle without the consent of the receiving country

shall upon conviction, be subject to a fine of not more than $50,000 for each day of violation, or imprisonment not to exceed two years (five years in the case of a violation of paragraph (1) or (2)), or both. If the conviction is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment under the respective paragraph shall be doubled with respect to both fine and imprisonment.

[(e) KNOWING ENDANGERMENT.—Any person who knowingly transports, treats, stores, or disposes of any hazardous waste identified or listed under this subtitle—

[(1)(A) in violation of paragraphs (1) or (2) of subsection (d) of this section, or

[(B) having applied for a permit under section 3005 or 3006, and knowingly either—

[(i) has failed to include in his application material information required under regulations promulgated by the Administrator, or

[(ii) fails to comply with the applicable interim status regulations and standards promulgated pursuant to this subtitle,

who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, and

[(2)(A) if his conduct in the circumstances manifests an unjustified and inexcusable disregard for human life, or

[(B) if his conduct in the circumstances manifests an extreme indifference for human life.

shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment for not more than 2 years, or both, except that any person who violates subsection (e)(2)(B) shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment for not more than 5 years, or both. A defendant that is an organization shall, upon conviction of violating

this subsection, be subject to a fine of not more than $1,000,000.]

(e) KNOWING ENDANGERMENT.—Any person who knowingly transports, treats, stores, disposes of, or exports any hazardous waste identified or listed under this subtitle in violation of paragraph (1), (2), (3), (4), or (5) of subsection (d) of this section who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment for not more than fifteen years, or both. A defendant that is an organization shall, upon conviction of violating this subsection, be subject to a fine of not more than $1,000,000.

* * * * * * *

RETENTION OF STATE AUTHORITY

SEC. 3009. * * *

EFFECTIVE DATE

SEC. 3010. (a) PRELIMINARY NOTIFICATION.—Not later than ninety days after promulgation of regulations under section 3001 identifying by its characteristics or listing any substance as hazardous waste subject to this subtitle, any person generating or transporting such substance or owning or operating a facility for treatment, storage, or disposal of such substance shall file with the Administrator (or with States having authorized hazardous waste permit programs under section 3006) a notification stating the location and general description of such activity and the identified or listed hazardous wastes handled by such person. *Not later than twelve months after the date of the enactment of the Solid Waste Disposal Act Amendments of 1983—*

(1) the owner or operator of any facility which produces a fuel (A) from any hazardous waste identified or listed under section 3001, (B) from such hazardous waste identified or listed under section 3001 and any other material, (C) from used oil, or (D) from used oil and any other material;

(2) the owner or operator of any facility (other than a single- or two-family residence) which burns for purposes of energy recovery any fuel produced as provided in paragraph (1) or any fuel which otherwise contains used oil or any hazardous waste identified or listed under section 3001; and

(3) any person who distributes or markets any fuel which is produced as provided in paragraph (1) or any fuel which otherwise contains used oil or any hazardous waste identified or listed under section 3001

shall file with the Administrator (and with the State in the case of a State with an authorized hazardous waste program) a notification stating the location and general description of the facility, together with a description of the identified or listed hazardous waste involved and, in the case of a facility referred to in paragraph (1) or (2), a description of the production or energy recovery activity carried out at the facility and such other information as the Administrator deems necessary. For purposes of the preceding sentence, the

term 'hazardous waste listed under section 3001' also includes any commercial chemical product which is listed under section 3001 and which, in lieu of its original intended use, is (i) produced for use as (or as a component of) a fuel, (ii) distributed for use as a fuel, or (iii) burned as a fuel. Notification shall not be required under the second sentence of this subsection in the case of facilities (such as residential boilers) where the Administrator determines that such notification is not necessary in order for the Administrator to obtain sufficient information respecting current practices of facilities using hazardous waste for energy recovery. Nothing in this subsection shall be construed to affect or impair the provisions of section 3001(b)(3). Nothing in this subsection shall affect regulatory determinations under section 3014 (as amended by the Used Oil Recycling Act of 1980). In revising any regulation under section 3001 identifying additional characteristics of hazardous waste or listing an additional substance as hazardous waste subject to this subtitle, the Administrator may require any person referred to in the preceding [sentence] *provisions* to file with the administrator (or with States having authorized hazardous waste permit programs under section 3006) the notification described in the preceding [sentence.] *provisions.* Not more than one such notification shall be required to be filed with respect to the same substance. No identified or listed hazardous waste subject to this subtitle may be transported, treated, stored, or disposed of unless notification has been given as required under this subsection.

(b) * * *

AUTHORIZATION OF ASSISTANCE TO STATES

SEC. 3011. (a) AUTHORIZATION.—There is authorized to be appropriated $25,000,000 for each of the fiscal years 1978 and 1979, $20,000,000 for fiscal year 1980, $35,000,000 for fiscal year 1981, [and] $40,000,000 for fiscal year 1982 *,$45,000,000 for the fiscal year 1983, $47,000,000 for the fiscal year 1984, $50,000,000 for fiscal year 1985, and $52,500,000 per fiscal year for fiscal years 1986 and 1987* to be used to make grants to States for purposes of assisting the States in the development and implementation of authorized State hazardous waste programs.

(b) * * *

* * * * * * *

HAZARDOUS WASTE SITE INVENTORY

SEC. 3012. * * *

MONITORING, ANALYSIS, AND TESTING

SEC. 3013. * * *

RESTRICTIONS ON RECYCLED OIL

SEC. [3012.] *3014.* Not later than one year after the date of the enactment of this section, the Administrator shall promulgate regulations establishing such performance standards and other requirements as may be necessary to protect the public health and

the environment from hazards associated with recycled oil. In developing such regulations, the Administrator shall conduct an analysis of the economic impact of the regulations on the oil recycling industry. The Administrator shall ensure that such regulations do not discourage the recovery or recycling of used oil.

INVENTORY OF FEDERAL AGENCY HAZARDOUS WASTE FACILITIES

SEC. 3015. (a) FEDERAL AGENCY INVENTORY.—Each Federal agency shall, within one year after the enactment of the Solid Waste Disposal Act Amendments of 1983, undertake a continuing program to compile, publish, and submit to the Administrator and the State (in the case of States having an authorized hazardous waste program) an inventory describing the location of each site which the Federal agency owns or operates where hazardous waste has at any time been treated, stored or disposed of. Such inventory shall contain—

(1) a description of the location of the sites at which any such treatment, storage, or disposal has taken place before the date on which permits are required under section 3005 for such storage or disposal;

(2) such information relating to the amount, nature, and toxicity of the hazardous waste at each such site as may be practicable to obtain and as may be necessary to determine the extent of any health hazard which may be associated with such site;

(3) the name and address and responsible agency for each such site, determined as of the date of preparation of the inventory;

(4) an identification of the types of techniques of waste treatment, storage, or disposal which have been used at each site; and

(5) information concerning the current status of the site, including information respecting whether or not hazardous waste is currently being treated, stored, or disposed of at such site (and if not, the date on which such activity ceased) and information respecting the nature of any other activity currently carried out at such site.

(b) ENVIRONMENTAL PROTECTION AGENCY PROGRAM.—If the Administrator determines that any Federal agency under subsection (a) is not adequately providing information respecting the sites referred to in subsection (a), the Administrator shall notify the chief official of such Agency. If within ninety days following such notification, the Federal agency has not undertaken a program to adequately provide such information, the Administrator shall carry out the inventory program for such agency.

EXPORT OF HAZARDOUS WASTE

SEC. 3016. (a) GENERAL.—Beginning twenty-four months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, no person shall export any hazardous waste identified or listed under this subtitle unless (1) such person has provided the notification required in subsection (c) of this section, (2) the Government of the receiving country has consented to accept such hazardous waste, (3) a copy of the receiving country's written consent is at-

tached to the manifest accompanying each waste shipment, and (4) the shipment conforms with the terms of the consent of the Government of the receiving country required pursuant to subsection (e), or (5) the United States and the Government of the receiving country have entered into an agreement as provided for in subsection (f).

(b) REGULATIONS.—Not later than twelve months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall promulgate the regulations necessary to implement this section. Such regulations shall become effective one hundred and eighty days after promulgation.

(c) NOTIFICATION.—Any person who intends to export a hazardous waste identified or listed under this subtitle after the date beginning twelve months after the date of enactment of Solid Waste Disposal Act Amendments of 1983, shall, before such hazardous waste is scheduled to leave the United States, provide notification to the Administrator. Such notification shall concern the following information:

(1) the name and address of the exporter;

(2) the types and estimated quantities of hazardous waste to be exported;

(3) the estimated frequency or rate at which such waste is to be exported; and the period of time over which such waste is to be exported;

(4) the ports of entry;

(5) a description of the manner in which such hazardous waste will be transported to and treated, stored, or disposed in the receiving country; and

(6) the name and address of the ultimate treatment, storage or disposal facility.

(d) PROCEDURES FOR REQUESTING CONSENT OF THE RECEIVING COUNTRY.—Within thirty days of the Administrator's receipt of a complete notification under this section, the Department of State, acting on behalf of the Administrator, shall—

(1) forward a copy of the notification to the government of the receiving country;

(2) advise the government that United States law prohibits the export of hazardous waste unless the receiving country consents to accept the hazardous waste;

(3) request the government to provide the Secretary with a written consent or objection to the terms of the notification; and

(4) forward to the Government of the receiving country a description of the Federal regulations which would apply to the treatment, storage, and disposal of the hazardous waste in the United States.

(e) CONVEYANCE OF WRITTEN CONSENT TO EXPORTER.—Within thirty days of receipt by the Department of State of the receiving country's written consent or objection (or any subsequent communication withdrawing a prior consent or objection), the Administrator shall forward such a consent, objection, or other communication to the exporter.

(f) INTERNATIONAL AGREEMENTS.—Where there exists an international agreement between the United States and the Government of the receiving country establishing notice, export, and enforcement procedures for the transportation, treatment, storage, and disposal

of hazardous wastes, only the requirements of subsection (g) shall apply.

(g) REPORTS.—After the date of enactment of the Solid Waste Disposal Act Amendments of 1983, any person who exports any hazardous waste identified or listed under this subtitle shall file with the Administrator no later than March 1 of each year, a report summarizing the types, quantities, frequency, and ultimate destination of all such hazardous waste exported during the previous calendar year.

(h) OTHER STANDARDS.—Nothing in this section shall preclude the Administrator from establishing other standards for the export of hazardous wastes under section 3002 or section 3003 of this subtitle.

SUBTITLE D—STATE OR REGIONAL SOLID WASTE PLANS

OBJECTIVES OF SUBTITLE

SEC. 4001. The objectives of this subtitle are to assist in developing and encouraging methods for the disposal of solid waste which are environmentally sound and which maximize the utilization of valuable resources including energy and materials which are recoverable from solid waste and to encourage resource conservation. Such objectives are to be accomplished through Federal technical and financial assistance to States or regional authorities for comprehensive planning pursuant to Federal guidelines designed to foster cooperation among Federal, State, and local governments and private industry. *In developing such comprehensive plans, it is the intention of this Act that in determining the size of the waste-to-energy facility, adequate provision shall be given to the present and reasonably anticipated future needs of the recycling and resource recovery interest within the area encompassed by the planning process.*

FEDERAL GUIDELINES FOR PLANS

SEC. 4002. * * *

REQUIREMENTS FOR APPROVAL OF PLANS

SEC. 4003. (a) * * *

(b) ENERGY AND MATERIALS CONSERVATION AND RECOVERY FEASIBILITY PLANNING AND ASSISTANCE.— * * *

[(b)] *(c)* DISCRETIONARY PLAN PROVISIONS RELATING TO RECYCLED OIL.— * * *

(d) SIZE OF WASTE-TO-ENERGY FACILITIES.—Notwithstanding any of the above requirements, it is the intention of this Act and the planning process developed pursuant to this Act that in determining the size of the waste-to-energy facility, adequate provision shall be given to the present and reasonably anticipated future needs of the recycling and resource recovery interest within the area encompassed by the planning process.

CRITERIA FOR SANITARY LANDFILLS; SANITARY LANDFILLS REQUIRED FOR ALL DISPOSAL

SEC. 4004. (a) CRITERIA FOR SANITARY LANDFILLS.—(1) Not later than one year after the date of enactment of this section, after consultation with the States, and after notice and public hearings, the Administrator shall promulgate regulations containing criteria for determining which facilities shall be classified as sanitary landfills and which shall be classified as open dumps within the meaning of this Act. At a minimum, such criteria shall provide that a facility may be classified as a sanitary landfill and not an open dump only if there is no reasonable probability of adverse effects on health or the environment from disposal of solid waste as such facility. Such regulations may provide for the classification of the types of sanitary landfills.

(2) Not later than twenty-four months after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall promulgate revisions of the criteria promulgated under paragraph (1) and section 1008(a)(3) to reflect improvements in the state of control and measurement technology and the need to protect human health and the environment. Such revisions shall take into account the potential receipt by such facilities of hazardous waste in household waste and from small quantity generators under section 3002(b), and the possibility of illegal dumping of hazardous wastes in such facilities. At a minimum such revisions for facilities receiving such wastes should require groundwater monitoring, and provide for corrective action as appropriate.

(b) DISPOSAL REQUIRED TO BE IN SANITARY LANDFILLS, ETC.—For purposes of complying with section 4003(2) each State plan shall prohibit the establishment of open dumps and contain a requirement that disposal of all solid waste within the State shall be in compliance with such section 4003(2).

(c) EFFECTIVE DATE.—The prohibition contained in subsection (b) shall take effect on the date six months after the date of promulgation of regulations under subsection (a) [or on the date of approval of the State plan, whichever is later].

UPGRADING OF OPEN DUMPS

SEC. 4005. (a) * * *

* * * * * * *

(c) CONTROL OF HAZARDOUS DISPOSAL.—Not later than forty-two months after the enactment of the Solid Waste Disposal Act Amendments of 1983, each State shall adopt and begin to enforce a permit program or other system of prior approval and conditions, to assure that each solid waste management facility within such State which may receive hazardous waste in household waste or due to the provisions of section 3002(b) for small quantity generators (otherwise not subject to the requirement for a permit under section 3005 of this Act) will comply with the criteria revised under section 4004(a)(2). In any State which does not adopt such a program for such facilities by the date forty-two months after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall use the authorities available under sections 3007 and 3008 of this

title to enforce the prohibition in subsection (a) of this section with respect to such facilities. For purposes of this paragraph, the term "requirement of this subtitle" in section 3008 shall be deemed to include criteria promulgated by the Administrator under sections 1008(a)(3) and 4004(a) of this title, and the term "hazardous wastes" in section 3007 shall be deemed to include solid wastes received at such facilities.

PROCEDURE FOR DEVELOPMENT AND IMPLEMENTATION OF STATE PLAN

SEC. 4006. * * *

SUBTITLE E—DUTIES OF THE SECRETARY OF COMMERCE IN RESOURCE AND RECOVERY

* * * * * * *

SUBTITLE F—FEDERAL RESPONSIBILITIES

* * * * * * *

SUBTITLE G—MISCELLANEOUS PROVISIONS

EMPLOYEE PROTECTION

SEC. 7001. * * *

CITIZEN SUITS

SEC. 7002. (a) IN GENERAL.—Except as provided in subsection (b) or (c) of this section, any person may commence a civil action on his own behalf—

(1)*(A)* against any person (including (a) the United States, and (b) any other governmental instrumentality or agency, to the extent permitted by the eleventh amendment to the Constitution) who is alleged to be in violation of any permit, standard, regulation, condition, requirement, *prohibition,* or order which has become effective pursuant to this Act; or

(B) against any person, including the United States and any other governmental instrumentality or agency, to the extent permitted by the eleventh amendment to the Constitution, and including any past or present generator, past or present transporter, or past or present owner or operator of a treatment, storage, or disposal facility who has contributed or who is contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment; or

(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this Act which is not discretionary with the Administrator.

Any action under paragraph (a)(1) of this subsection shall be brought in the district court for the district in which the alleged violation occurred *or the alleged endangerment may occur.* Any action brought under paragraph (a)(2) of this subsection may be brought in the district court for the district in which the alleged violation occured or in the District Court of the District of Colum-

bia. The district court shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, [to enforce such regulation or order, or to order the Administrator to perform such act or duty as the case may be.] *to enforce the permit, standard, regulation, condition requirement, prohibition, or order, referred to in paragraph (1)(A), to restrain any person who has contributed or who is contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste referred to in paragraph (1)(B), to order such person to take such other action as may be necessary, or both, or to order the Administrator to perform the act or duty referred to in paragraph (2), as the case may be, and to apply any appropriate civil penalties under section 3008 (a) and (g).*

[(b) ACTIONS PROHIBITED.—No action may be commenced under paragraph (a)(1) of this section—

[(1) prior to sixty days after the plaintiff has given notice of the violation (A) to the Administrator; (B) to the State in which the alleged violation occurs; and (C) to any alleged violator of such permit, standard, regulation, condition, requirement, or order; or

[(2) if the Administrator or State has commenced and is diligently prosecuting a civil or criminal action in a court of the United States or a State to require compliance with such permit, standard, regulation, condition, requirement, or order: *Provided, however,* That in any such action in a court of the United States, any person may intervene as a matter of right.]

(b) ACTIONS PROHIBITED.—No action may be commenced under subsection (a)(1) of this section—

(1) prior to sixty days after the plaintiff has given notice of the violation or prior to one hundred and twenty days after the plaintiff has given notice of the endangerment (A) to the Administrator; (B) to the State in which the alleged violation occurs or in which the alleged endangerment may occur; and (C) to any alleged violator of such permit, standard, regulation, condition, requirement, prohibition, or order, or any person alleged to have contributed or to be contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste referred to in subsection (a)(1)(B) of this section, except that such action may be brought immediately after such notification in the case of an action under this section respecting a violation of subtitle C of this Act; or

(2) with respect to an action under subsection (a)(1)(A) of this section, if the Administrator or State has commenced and is diligently prosecuting a civil or criminal action in a court of the United States or a State to require compliance with such permit, standard, regulation, condition, requirement, prohibition, or order: Provided however, That in any such action in a court of the United States, any person may intervene as a matter of right; or

(3) with respect to an action under subsection (a)(1)(B) of this section, if the Administrator has commenced and is diligently prosecuting an action under section 7003 of this Act or has set-

tled such action to restrain or abate acts or conditions which may have contributed or are contributing to the activities which may present the alleged endangerment, or if the State has commenced and is diligently prosecuting an action under subsection (a)(1)(B) of this section: Provided, however, That in any such action in a court of the United States, any person may intervene as a matter of right when the applicant claims an interest relating to the subject of the action and he is so situated that the disposition of the action may, as a practical matter, impair or impede his ability to protect that interest, unless the Administrator or the State shows that the applicant's interest is adequately represented by existing parties. No action may be commenced under subsection (a)(1)(B) by any person (other than a State or local government) with respect to the siting of a hazardous waste treatment, storage, or a disposal facility, nor to restrain or enjoin the issuance of a permit for such facility.

(c) NOTICE.—* * *

(d) INTERVENTION.—* * *

(e) COSTS.—The court, in issuing any final order in any action brought pursuant to this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any *prevailing or substantially prevailing* party, whenever the court determines such an award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought, require the filing of a bond or equivalent security in accordance with the Federal Rules of Civil Procedure.

(f) OTHER RIGHTS PRESERVED.—* * *

IMMINENT HAZARD

SEC. 7003. (a) AUTHORITY OF ADMINISTRATOR.—Notwithstanding any other provision of this Act, upon receipt of evidence that the *past or present* handling, storage, treatment, transportation or disposal of any solid waste or hazardous waste may present an imminent and substantial endangerment to health or the environment, the Administrator may bring suit on behalf of the United States in the appropriate district court [to immediately restrain any person] *against any person (including any past or present generator, past or present transporter, or past or present owner or operator of a treatment, storage, or disposal facility) who has contributed or who is* contributing to such handling, storage, treatment, transportaton or disposal [to stop] *to restrain such person from* such handling, storage, treatment, transportation, or disposal [or to take such other action as may be necessary], *to order such person to take such other action as may be necessary, or both.* The Administrator shall provide notice to the affected State of any such suit. The Administrator may also, after notice to the affected State, take other action under this section including, but not limited to, issuing such orders as may be necessary to protect public health and the environment.

(b) VIOLATIONS.—* * *

(c) Whenever the United States or the Administrator proposes to covenant not to sue or to forbear from suit or to settle any claim arising under this section, notice, and opportunity for a public meet-

ing in the affected area, and a reasonable opportunity to comment on the proposed settlement prior to its final entry shall be afforded to the public. The decision of the United States or the Administrator to enter into or not to enter into such Consent Decree, covenant or agreement shall not constitute a final agency action subject to judicial review under this Act or the Administrative Procedure Act.

PETITION FOR REGULATIONS; PUBLIC PARTICIPATION

SEC. 7004. * * *

SEPARABILITY

SEC. 7005. * * *

JUDICIAL REVIEW

[SEC. 7006. (a) REVIEW OF FINAL REGULATIONS AND CERTAIN PETITIONS—Any judicial review of final regulations promulgated pursuant to this Act and the Administrator's denial of any petition for the promulgation, amendment, or repeal of any regulation under this Act shall be in accordance with sections 701 through 706 of title 5 of the United States Code, except that —

[(1) a petition for review of action of the Administrator in promulgating any regulation, or requirement under this Act or denying any petition for the promulgation, amendment or repeal of any regulation under this Act may be filed only in the United States Court of Appeals for the District of Columbia, and such petition shall be filed within ninety days for the date of such promulgation or denial or after such date if such petition for review is based solely on grounds arising after such ninetieth day; action of the Administrator with respect to which review could have been obtained under this subsection shall not be subject to judicial review in civil or criminal proceedings for enforcement; and

[(2) in any judicial proceeding brought under this section in which review is sought of a determination under this Act required to be made on the record after notice and opportunity for hearing, if a party is seeking review under this Act applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that the information is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, and to be adduced upon the hearing in such manner and upon such terms and conditions as the court may deem proper; the Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken, and he shall file with the court such modified or new findings and his recommendation, if any for the modification or setting aside of his original order, with the return of such additional evidence.

[(b) REVIEW OF CERTAIN ACTIONS UNDER SECTIONS 3005 AND 3006.—Review of the Administrator's action (1) in issuing, denying,

modifying or revoking any permit under section 3005, or (2) in granting, denying, or withdrawing authorization or interim authorization under section 3006, may be had by any interested person in the Circuit Court of Appeals of the United States for the Federal judicial district in which such person resides or transacts such business upon application by such person. Any such application shall be made within ninety days from the date of such issuance, denial, modification revocation, grant, or withdrawal, or after such date only if such application is based solely on grounds which arose after such ninetieth day. Such reivew shall be in accordance with sections 701 through 706 of title 5 of the United States Code.]

SEC. 7006. (a) REVIEW OF FINAL REGULATIONS AND CERTAIN PETITIONS.—A petition for review of the promulgation of final regulations under this Act and the Administrator's denial of any petition for the promulgation, amendment, or repeal of any regulation under this Act may be filed in the United States Court of Appeals for the District of Columbia or in any United States Court of Appeals for a circuit in which the petitioner resides or transacts business which is directly affected by such promulgation or denial, and such petition shall be filed within one hundred and twenty days from the date of such promulgation or denial, unless such petition is based solely on grounds arising after such one hundred and twentieth day. Any action of the Administrator with respect to which review could have been obtained under this subsection shall not be subject to judicial review in civil or criminal proceedings for enforcement.

(b) REVIEW OF CERTAIN ACTIONS UNDER SECTIONS 3005 AND 3006.—A petition for review of the Administrator's action (1) in issuing, denying, modifying, or revoking any permit under section 3005, or (2) in granting, denying, or withdrawing authorization or interim authorization under section 3006, may be filed by any interested person in the United States Court of Appeals for a circuit in which the petitioner resides or transacts business which is directly affected by such action, and such petition shall be filed within one hundred and twenty days from the date of such issuance, denial, modification, revocation, grant, or withdrawal, or after such date only if such petition is based solely on grounds which arose after such one hundred and twentieth day. Any action of the Administrator with respect to which review could have been obtained under this subsection shall not be subject to judicial review in civil or criminal proceedings for enforcement.

(c) In any judicial proceeding brought under this section in which review is sought of a determination under this Act required to be made on the record after notice and opportunity for hearing, if a party seeking review under this Act applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that the information is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, and to be adduced upon the hearing in such manner and upon such terms and conditions as the court may deem proper; the Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken, and he shall file with the court such modified or new findings and his rec-

ommendation, if any, for the modification or setting aside of his original order, with the return of such additional evidence.

(d)(1) If petitions for review of the same agency action have been filed in two or more United States Courts of Appeals and the Administrator has received written notice of the filing of the first such petition more than thirty days before receiving written notice of the filing of the second petition, then the record shall be filed in that court in which the first petition was filed. If petitions for review of the same agency action have beer filed in two or more United States Courts of Appeals and the Administrator has received written notice of the filing of one or more petitions within thirty days or less after receiving written notice of the filing of the first petition, then the Administrator shall promptly advise in writing the Administrative Office of the United States Courts that petitions have been filed in two or more United States Courts of Appeals, and shall identify each court for which he has written notice that such petitions have been filed within thirty days or less of receiving written notice of the filing of the first such petition. Pursuant to a system of random selection devised for this purpose, and within three business days after receiving such notice from the Administrator, the Administrative Office thereupon shall select the court in which the record shall be filed from among those identified by the Administrator. Upon notification of such selection, the Administrator shall promptly file the record in such court. For the purpose of review of agency action which has previously been remanded to the Administrator, the record shall be filed in the United States Courts of Appeals which remanded such action.

(2) Where petitions have been filed in two or more United States Courts of Appeals with respect to the same agency action and the record has been filed in one of such courts pursuant to paragraph (1), the other courts in which such petitions have been filed shall promptly transfer such petitions to the United States Courts of Appeals in which the record has been filed. Pending selection of a court pursuant to subsection (1), any court in which a petition has been filed may postpone the effective date of the agency action until fifteen days after the Administrative Office has selected the court in which the record shall be filed.

(3) Any court in which a petition with respect to any agency action has been filed, including any court selected pursuant to subsection (d)(1), may transfer such petition to any other United States Courts of Appeals for the convenience of the parties or otherwise in the interest of justice.

(e) In any judicial proceeding under this section, the court may award costs of litigation (including reasonable attorney and expert witness fees) to any prevailing or substantially prevailing party whenever it determines that such award is appropriate.

GRANTS OR CONTRACTS FOR TRAINING PROJECTS

SEC. 7007. * * *

PAYMENTS

SEC. 7008. * * *

LABOR STANDARDS

SEC. 7009. * * *

SUBTITLE H—RESEARCH, DEVELOPMENT, DEMONSTRATION, AND INFORMATION

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SPECIAL STUDIES; PLANS FOR RESEARCH, DEVELOPMENT, AND DEMONSTRATIONS

SEC. 8002. (a) * * *.

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(r) MINIMIZATION OF HAZARDOUS WASTE.—The Administrator shall compile, and not later than October 1, 1986, submit to the Congress, a report on the feasibility and desirability of establishing standards of performance or of taking other additional actions under this Act to require the generators of hazardous waste to reduce the volume or quantity and toxicity of the hazardous waste they generate, and of establishing with respect to hazardous wastes required management practices or other requirements to assure such wastes are managed in ways that minimize present and future risks to human health and the environment. Such report shall include any recommendations for legislative changes which the Administrator determines are feasible and desirable to implement the national policy established by section 1003.

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980

AN ACT To provide for liability, compensation, cleanup, and emergency response for hazardous substances released into the environment and the cleanup of inactive hazardous waste disposal sites

TITLE I—HAZARDOUS SUBSTANCES RELEASES, LIABILITY, COMPENSATION

DEFINITIONS

SEC. 101. For purpose of this title, the term—

* * * * * * *

(23) "remove" or "removal" means the cleanup or removal of released hazardous substances from the environment, such actions as may be necessary taken in the event of the threat of release of hazardous substances into the environment, such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances, the disposal of removed material, or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment, which may otherwise result from a release or threat of release. The term includes, in addition, without being limited to, security fencing or other measures to limit access, provision of alternative water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, *costs of permanent*

relocation of residents where it is determined that such permanent relocation is cost effective or may be necessary to protect health or welfare, action taken under section 104(b) of this Act, and any emergency assistance which may be provided under the Disaster Relief Act of 1974[;]. *In the case of a business located in an area of evacuation or relocation, the term may also include the payment of those installments of principal and interest on business debt which accrue between the date of evacuation or temporary relocation and thirty days following the date that permanent relocation is actually accomplished or, if permanent relocation is formally rejected as the appropriate response, the date on which evacuation or temporary relocation ceases. In the case of an individual unemployed as a result of such evacuation or relocation, it may also include the provisions of the assistance authorized by sections 407, 408, and 409 of the Disaster Relief Act of 1974;*

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RESPONSE AUTHORITIES

SEC. 104. (a) * * *

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(c)(1) Unless (A) the President finds that (i) continued response actions are immediately required to prevent, limit, or mitigate an emergency, (ii) there is an immediate risk to public health or welfare or the environment, and (iii) such assistance will not otherwise be provided on a timely basis, or (B) the President has determined the appropriate remedial actions pursuant to paragraph (2) of this subsection and the State or States in which the source of the release is located have complied with the requirements of paragraph (3) of this subsection, obligations from the Fund, other than those *for permanent relocation or* authorized by subsection (b) of this section, shall not continue after $1,000,000 has been obligated for response actions or six months has elapsed from the date of initial response to a release or threatened release of hazardous substances.

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TITLE II—HAZARDOUS SUBSTANCE RESPONSE REVENUE ACT OF 1980

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SEC. 232. POST-CLOSURE LIABILITY TRUST FUND.

(a) CREATION OF TRUST FUND.—There is established in the Treasury of the United States a trust fund to be known as the "Post-closure Liability Trust Fund", consisting of such amounts as may be appropriated, credited, or transferred to such Trust Fund.

(b) EXPENDITURES FROM POST-CLOSURE LIABILITY TRUST FUND.—Amounts in the Post-Closure Liability Trust Fund shall be available only for the purposes described in sections 107(k) and 111(j) of this Act (as in effect on the date of the enactment of this Act).

(c) ADMINISTRATIVE PROVISIONS.—The provisions of sections 222 and 223 *(other than section 223(c)(2)(D))* of this Act shall apply with

respect to the Trust Fund established under this section, except that the amount of any repayable advances outstanding at any one time shall not exceed $200,000,000.

TITLE III—MISCELLANEOUS PROVISIONS

REPORTS AND STUDIES

SEC. 301. (a)(1) The President shall submit to the Congress, within [four years] *forty-two months* after enactment of this Act, a comprehensive report on experience with the implementation of this Act, including, but not limited to—

* * * * * * *

EXPIRATION, SUNSET PROVISION

SEC. 303. Unless reauthorized by the Congress, the authority to collect taxes conferred by this Act *(other than under section 4681 of the Internal Revenue Code)* shall terminate on September 30, 1985, or when the sum of the amounts received in the Treasury under section 4611 and under 4661 of the Internal Revenue Code of 1954 total $1,380,000,000, whichever occurs first. The Secretary of the Treasury shall estimate when this level of $1,380,000,000 will be reached and shall by regulation, provide procedures for the termination of the tax authorized by this Act and imposed under sections 4611 and 4661 of the Internal Revenue Code of 1954.

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THE SAFE DRINKING WATER ACT

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PUBLIC WATER SYSTEMS

SEC. 2. (a) The Public Health Service Act is amended by inserting after title XIII the following new title:

TITLE XIV—SAFETY OF PUBLIC WATER SYSTEMS

* * * * * * *

PART C—PROTECTION OF UNDERGROUND SOURCES OF DRINKING WATER

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UNDERGROUND INJECTION OF HAZARDOUS WASTE

SEC. 1426. (a) The Administrator, in cooperation with the States, shall compile and, not later than March 15, 1984, submit to the Committee on Environment and Public Works of the United States Senate and the Committee on Energy and Commerce of the United States House of Representatives, an inventory of all wells in the United States which inject hazardous wastes. The inventory shall include the following information:

(2) engineering and construction details of each, including the thickness and composition of its casing, the width and content of the annulus, and pump pressure and capacity;

(3) the hydrogeological characteristics of the overlying and underlying strata, as well as that into which the waste is injected;

(4) the location and size of all drinking water aquifers penetrated by the well, or within a one-mile radius of the well or within two hundred feet below the well injection point;

(5) the location, capacity, and population served by each well providing drinking or irrigation water which is within a five-mile radius of the injection well;

(6) the nature and volume of the waste injected during the one-year period immediately preceding the date of the report;

(7) the dates and nature of the inspections of the injection well conducted by independent third parties or agents of State, Federal, or local government;

(8) the name and address of all owners and operators of the well and any disposal facility associated with it; and

(9) such other information as the Administrator may, in his discretion, deem necessary to define the scope and nature of hazardous waste disposal in the United States through underground injection.

(b) In fulfilling the requirements of subsections (a)(3)–(5), the Administrator need only submit such information as can be obtained from currently existing State records and from site visits to at least twenty facilities containing wells which inject hazardous waste.

(c) The States shall make available to the Administrator such information as he deems necessary to accomplish the objectives of this section.

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